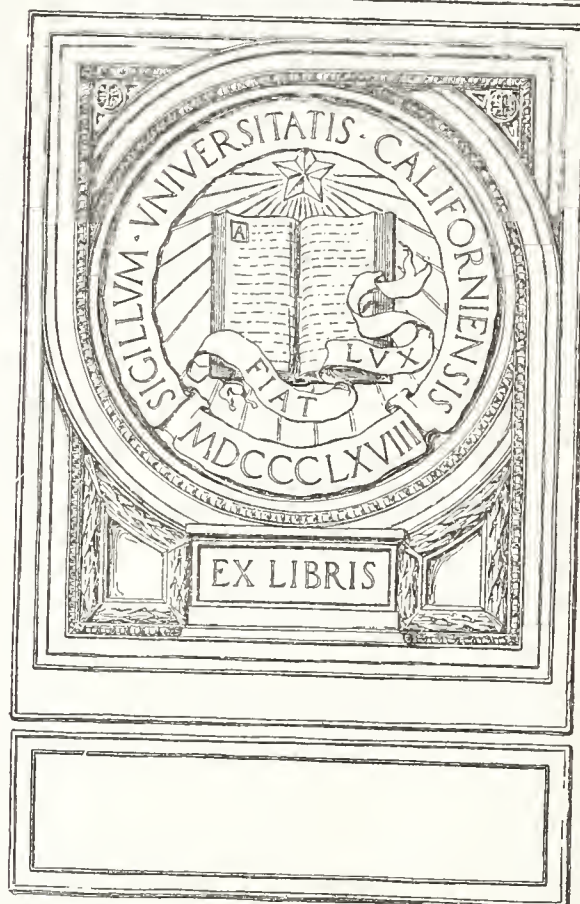
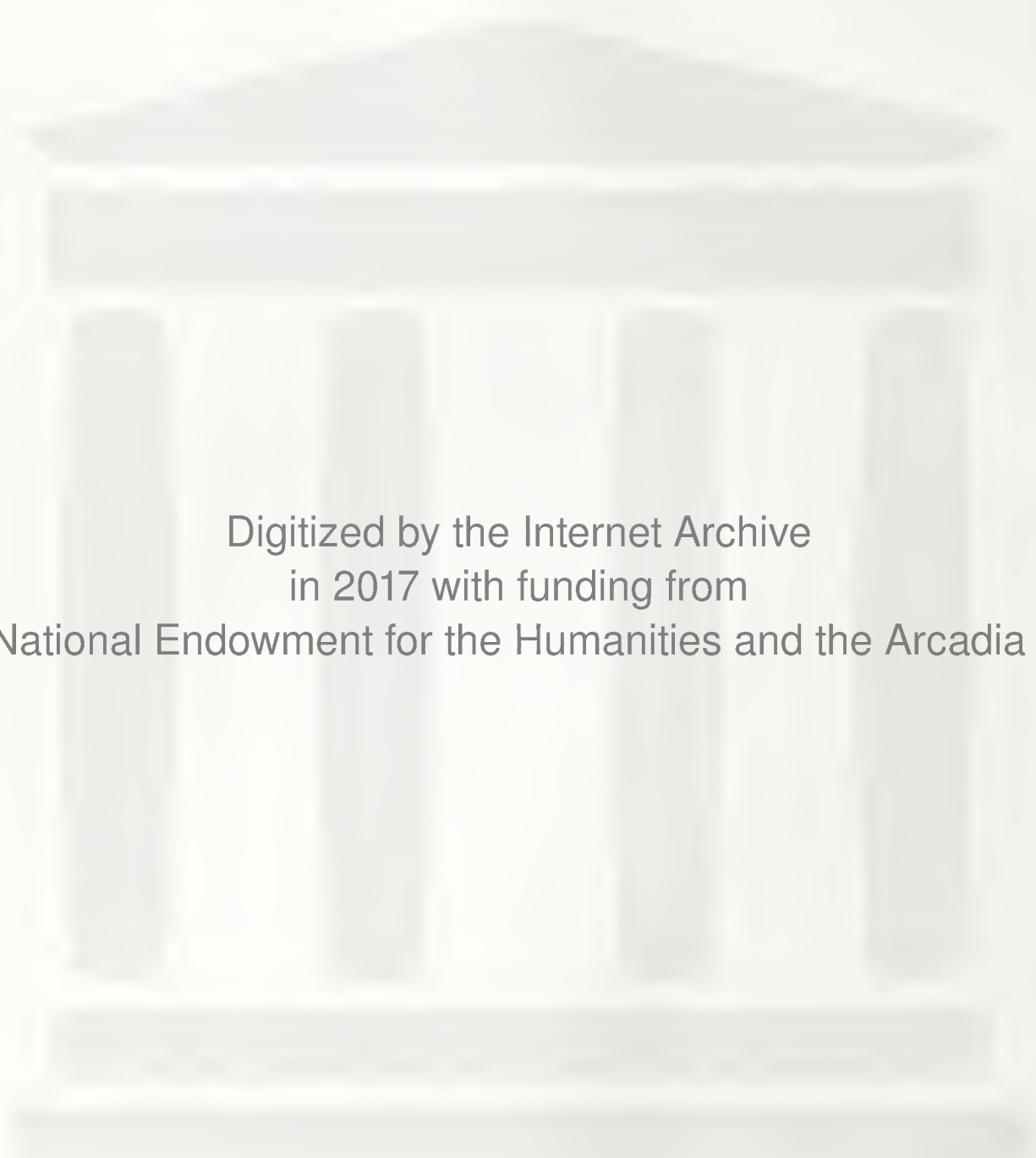


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Contributors to This Issue

✓ H. C. SHEPARDSON and R. E. ALLEN
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BEDSIDE MEDICINE FOR BEDSIDE DOCTORS

Subject this month: Should Drug Addiction be a Reportable Disease—Give Reasons
Discussed by: Robert T. Legge, George E. Ebright, George Parrish, William C. Hassler

Editorials; The Month with the Editor; Medical Economics and Public Health; Readers Forum;
Medical and Health Agency News; California and Utah Medical Associations;
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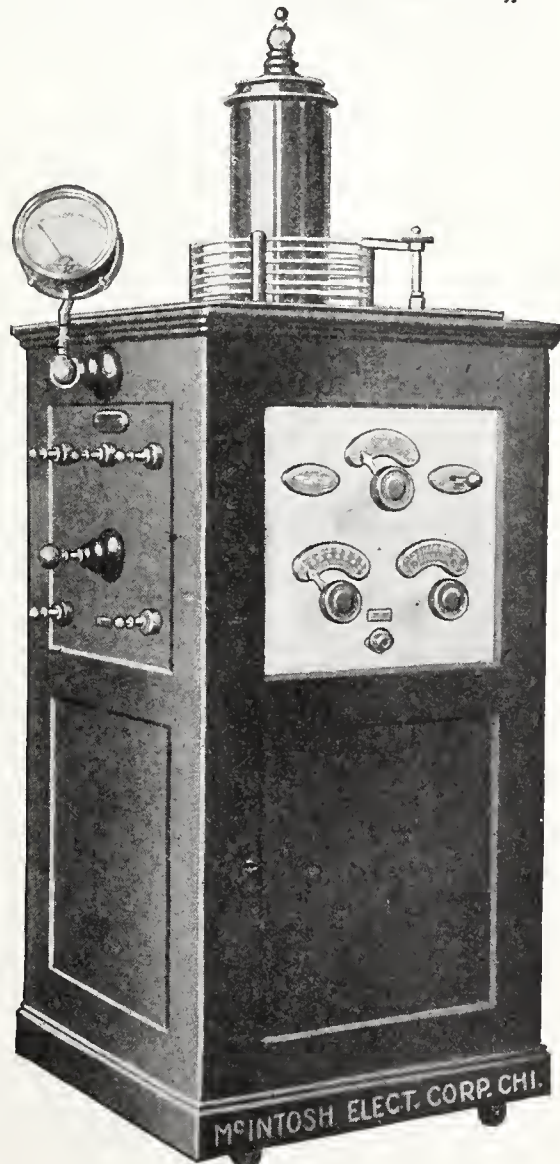
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VOLUME XXVI

JANUARY, 1927

No. 1

Subscription prices, \$5.00 (\$6.00 for foreign countries); single copies, 50 cents.

Acceptance for mailing at special rate of postage provided for in Section 1103, Act of October 3, 1917, authorized August 10, 1918.

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Report on Third International Congress of Military Medicine and Pharmacy, Paris, April, 1925. By William Seaman Bainbridge. Review copy by courtesy of the author.

Researches on Hookworm in China. By W. W. Cort, J. B. Grant, N. R. Stoll, and other Collaborators. Review copy by courtesy of The American Journal of Hygiene.

Diseases of Women. By Harry Sturgeon Crossen. Review copy by courtesy of the publishers, The C. V. Mosby Company, St. Louis.

Physiology and Biochemistry in Modern Medicine. By J. J. R. MacLeod. Review copy by courtesy of the publishers, The C. V. Mosby Company, St. Louis.

Shell Shock and Its Aftermath. By Norman Fenton. Review copy by courtesy of the publishers, The C. V. Mosby Company, St. Louis.

The Practice of Preventive Medicine. By J. G. Fitzgerald. Review copy by courtesy of the publishers, The C. V. Mosby Company, St. Louis.

Pneumoconiosis (Silicosis): A Roentgenological Study, with Notes on Pathology. By Henry A. Pancoast and Eugene P. Pendergrass. Review copy by courtesy of the publishers, Paul B. Hoeber, Inc., New York.

A Statistical Survey of Three Thousand Autopsies. By William Ophuls. Review copy by courtesy of Stanford University Press.

The Rockefeller Foundation Annual Report (1925). Review copy by courtesy of the Rockefeller Foundation, New York.

The Medical Department of the United States Army in the World War (Vol. VI). Sanitation. In the United States by Colonel Weston P. Chamberlain, M. C. In the American Expeditionary Forces by Lieutenant-Colonel Frank W. Weed, M. C. Prepared under the direction of Major-General M. W. Ireland, the Surgeon-General. Review copy by courtesy of the Government Printing Office, Washington.

Practical Surgery of the Joseph Price Hospital. By James William Kennedy. Review copy by courtesy of the publishers, F. A. Davis Company, Philadelphia.

The Normal Child. By B. Sachs. Review copy by courtesy of the publishers, Paul B. Hoeber, Inc., New York.

History-Taking and Recording. By James A. Corseaden. Review copy by courtesy of the publishers, Paul B. Hoeber, Inc., New York.

Annual Report of the Board of Regents of the Smithsonian Institution, showing the operations, expenditures, and condition of the institution for the year ending June 30, 1925. Review copy by courtesy of the Government Printing Office, Washington.

TRUTH ABOUT MEDICINES

New and Nonofficial Remedies

(Abstracts from reports of Council on Pharmacy and Chemistry, A. M. A.)

Note.—These do not represent all of the actions of the Council, but they do represent those remedies manufactured by firms who co-operate with California and Western Medicine in its advertising columns, and thereby with the physicians in California.

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Cutter Laboratory—Diphtheria Toxin-Antitoxin Mixture, 0.1 L.

Parke, Davis & Co.—Bismuth Salicylate in Oil. Parke, Davis & Co.

Eli Lilly & Co.—Cholera Vaccine, Prophylactic; Plague Vaccine, Prophylactic; Old Tuberculin Human Strain Concentrated; Pirquet Test; Tuberculin Ointment for the Moro Percutaneous Test; Tuberculin T. R. Concentrated Human Strain; Tuberculin B. E. Concentrated Human Strain; Tuberculin B. F. Concentrated Human

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Tetanus Antitoxin for Human Use (New and Nonofficial Remedies, 1926, p. 333)—This product is also marketed in packages of one syringe containing 10,000 units and in packages of one syringe containing 20,000 units. Cutter Laboratory, Berkeley, California.—Journal A. M. A.

Typhoid Prophylactic (New and Nonofficial Remedies, 1926, p. 359)—This typhoid vaccine is also marketed in packages of one syringe and in a 20 cc. bottle. Cutter Laboratory, Berkeley, California.

Scarlet Fever Streptococcus Antitoxin Concentrated Globulin, P. D. & Co. (New and Nonofficial Remedies, 1926, p. 332)—The product is now prepared by the method of Doctors Dick. This product is also marketed in single 1 cc. vial packages (for the diagnostic blanching test). Parke, Davis & Co., Detroit, Michigan.—Journal A. M. A., December 11, 1926, p. 1999.

Diphtheria Toxin-Antitoxin Mixture 0.1 L—Each cc. of the Diphtheria Toxin-Antitoxin Mixture (New and Nonofficial Remedies, 1926, p. 333), represents 0.1 L dose of diphtheria toxin neutralized with the required amount of antitoxin. The product is marketed in packages of three 1 cc. vials for one immunization; in packages of thirty 1 cc. vials for ten immunizations; in packages of one vial containing 50 cc. Cutter Laboratory, Berkeley, California.

Pirquet Test—Tuberculin—Koch (New and Nonofficial Remedies, 1926, p. 344), marketed in packages of three capillary tubes. Eli Lilly & Co., Indianapolis.

Tuberculin Ointment for the Moro Percutaneous Test—Tuberculin—Koch (New and Nonofficial Remedies, 1926, p. 344), marketed in the form of an ointment in tubes containing 2 gm.

Plague Vaccine, Prophylactic—Plague bacillus vaccine (New and Nonofficial Remedies, 1926, p. 354), marketed (for single vaccinations) in packages of two 1 cc.

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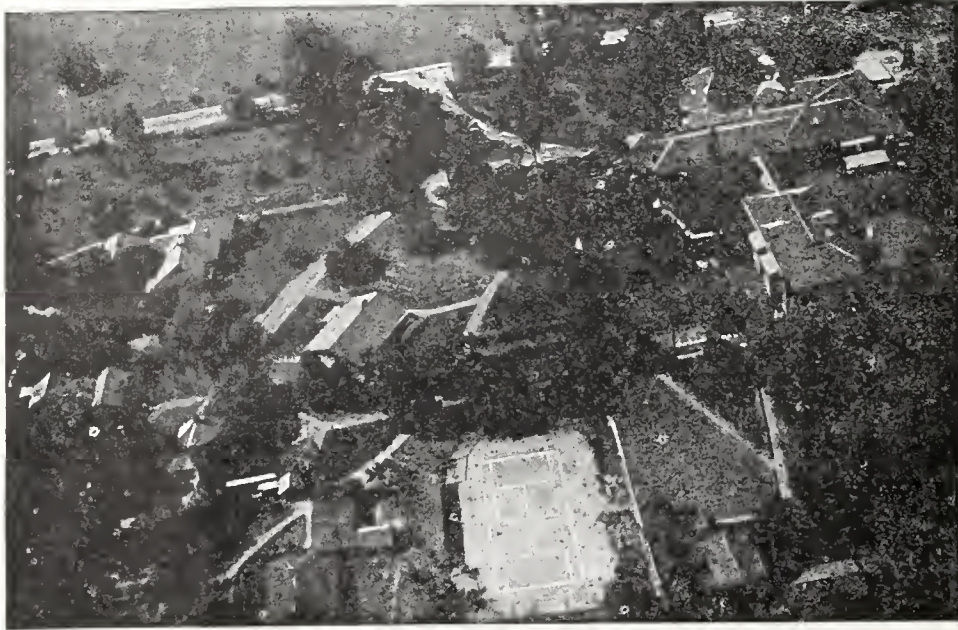
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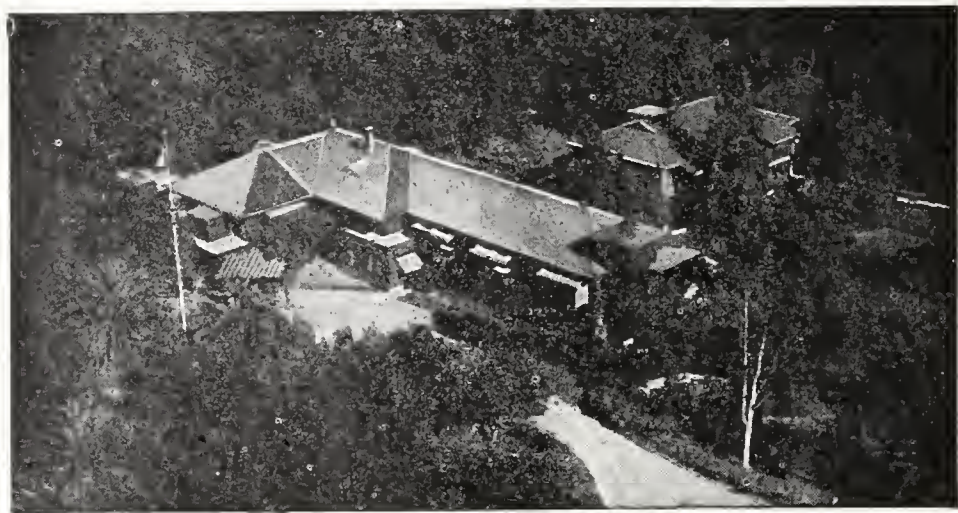
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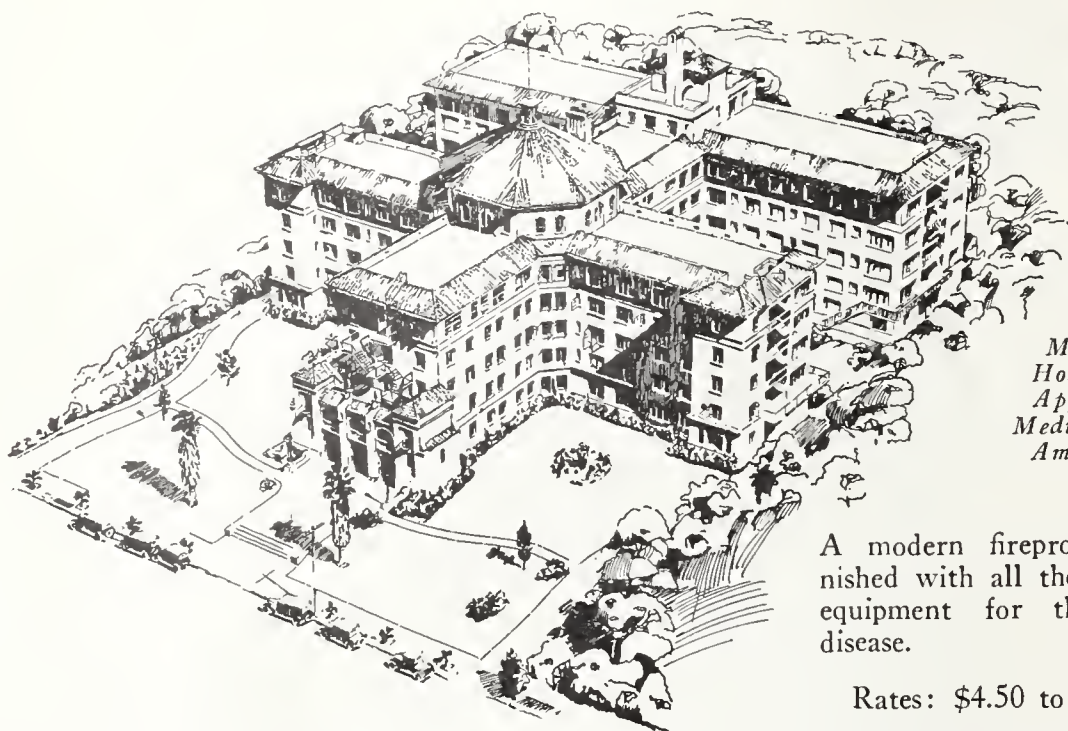
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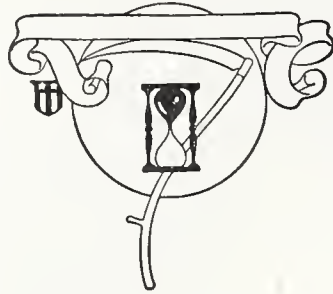


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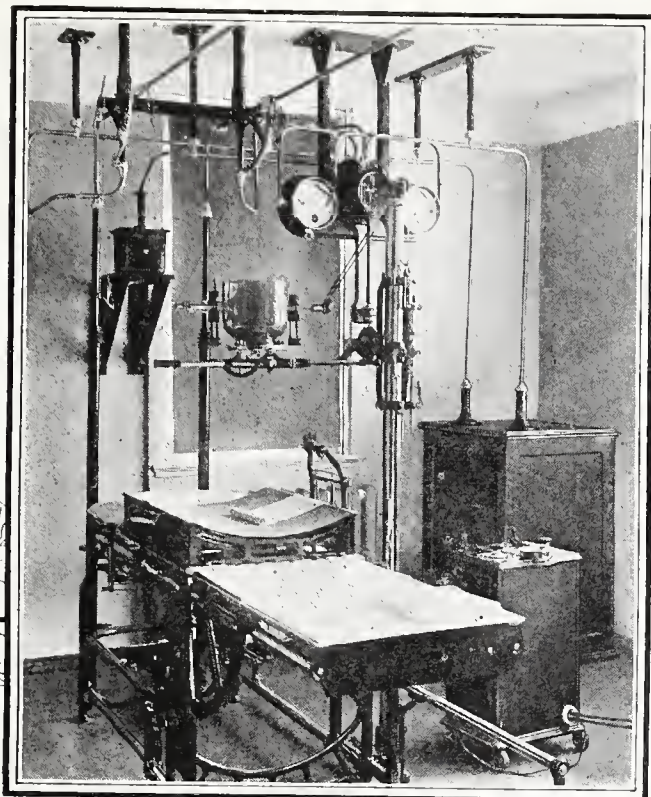
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Neurologic Manifestations in Pernicious Anemia—
The case reported by A. L. Skoog, Kansas City, Missouri (*Journal A. M. A.*), is an instance of subacute combined degeneration of the cord in pernicious anemia. It covers a period of illness in a man between the ages of 55 and 60, who, previously, for many years had been known as a hypertensive or nervous person. The clinical signs at first suggested tabes, for which disease he had been treated by several physicians for short intervals. The severe degenerations of a noninflammatory character involving the long pathways of the spinal cord, without producing much disturbance of the sphincteric functions, and no decubitus, Skoog says is remarkable, and it is exceptional to find the anterolateral columns involved in such a comparatively severe degree in subacute combined degenerations of pernicious anemia. Three main tissue systems are exceedingly important in the symptomatic and diagnostic considerations of pernicious anemia. Evidence of varying types of subacute combined degeneration of

the spinal cord without inflammatory changes will be found in more than 85 per cent of all cases of this disease. For a reasonably accurate clinical diagnosis of pernicious anemia with subacute combined degeneration of the spinal cord, an achlorhydria and a volume or color index greater than 1 are essential. Abnormalities of the flora and pathologic toxins in the small intestine may be secondary or terminal states. Physiologic or pathologic changes in the vegetative nervous system may be considered the primal source of the trouble. Especially is the solar plexus involved. Continuous emotional strains resulting from anxiety and worry are potent factors in the early etiology.

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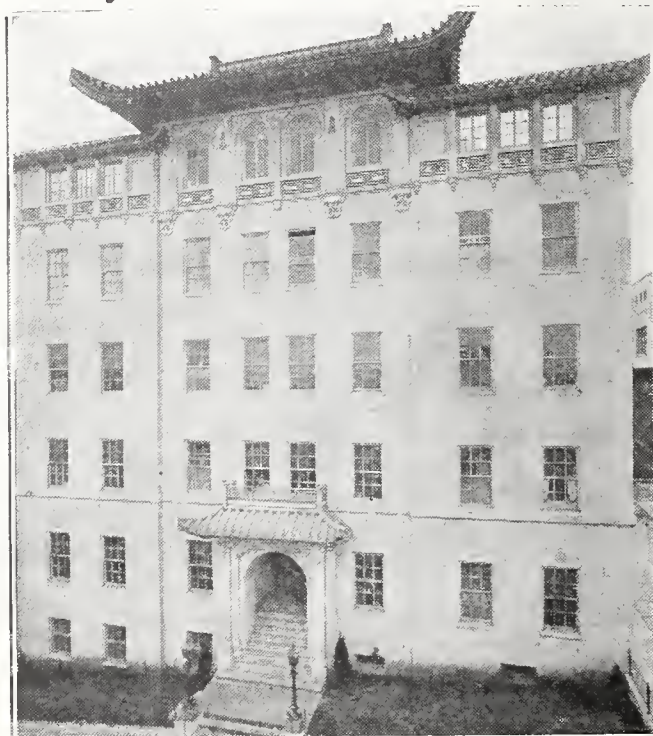


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TRUTH ABOUT MEDICINES

(Continued from Page 7)

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Tuberculin, B. F. Concentrated, Human Strain—Tuberculin Denys (New and Nonofficial Remedies, 1926, p. 349), marketed in 1 cc. vials. Eli Lilly & Co., Indianapolis.

Cholera Vaccine, Prophylactic—Cholera vaccine (New and Nonofficial Remedies, 1926, p. 351), marketed in packages of three 1 cc. vials; in packages of ten 2.5 cc. vials. Eli Lilly & Co., Indianapolis.—Journal A. M. A., December 25, 1926, p. 2163.

Scarlet Fever Toxin—Nicollé, Conseil and Durand, in Tunis, have recently described the development of scarlet fever in a person inoculated with the fourth subculture of a streptococcus isolated from the throat of a scarlet fever patient. This work is regarded by the investigators as confirmatory of the discovery by the Dicks that a specific streptococcus is the cause of scarlet fever. It emphasizes also the value of the later report of the Dicks of the intradermal injection of streptococcus toxin, the "Dick Test," as a means of determining susceptibility to scarlet fever.—Journal A. M. A.



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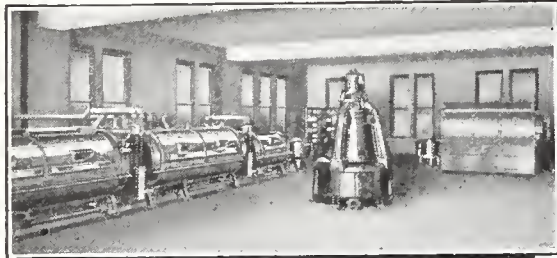
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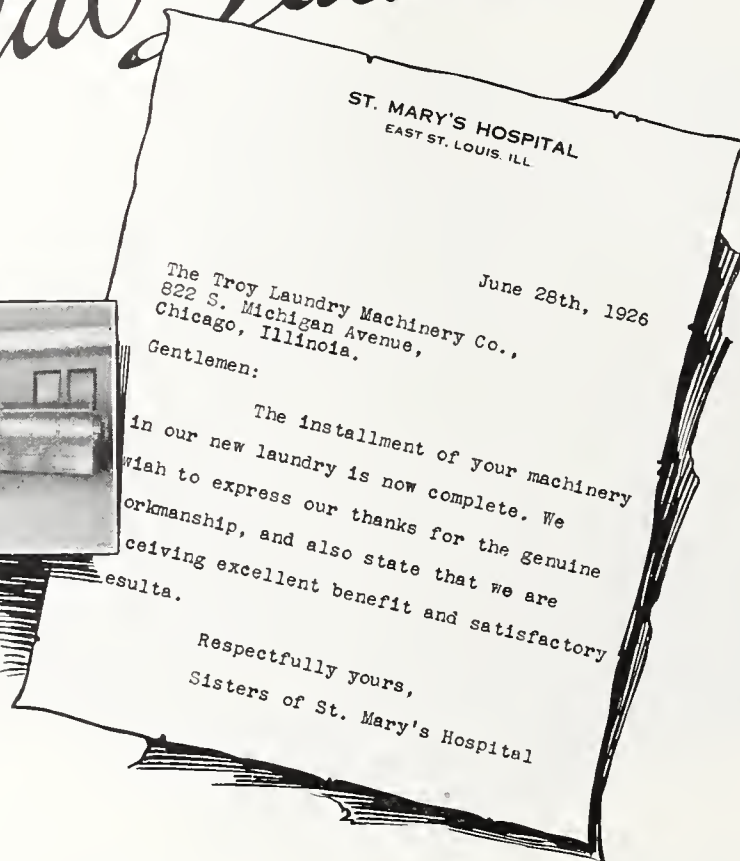
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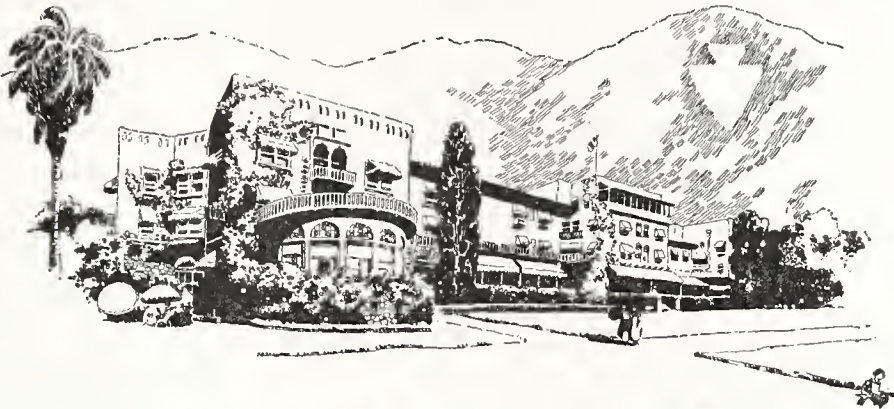
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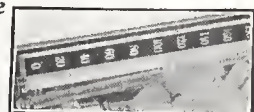
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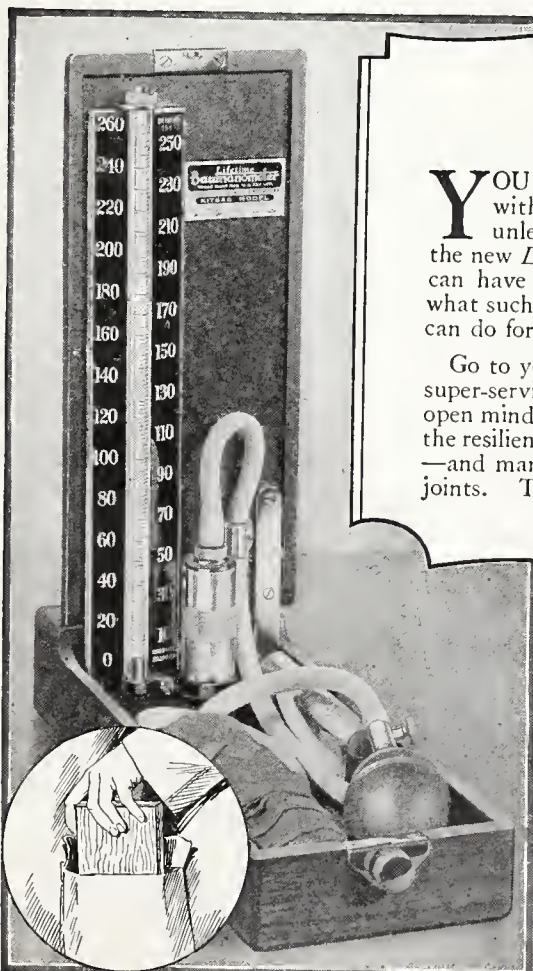
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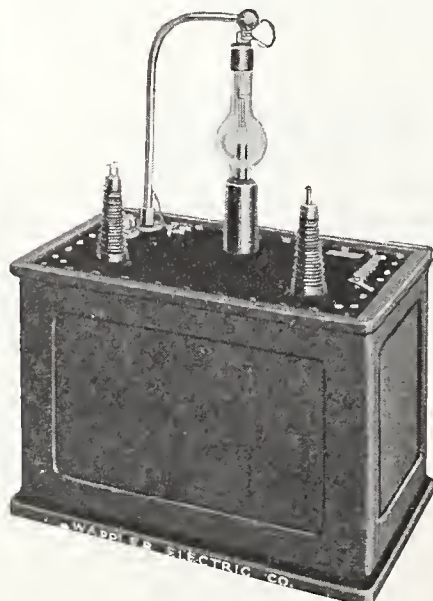
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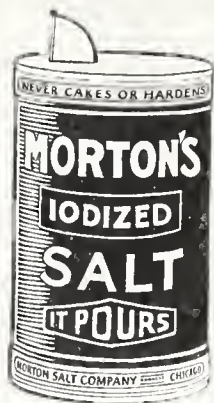
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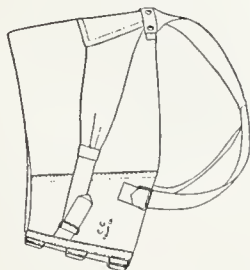
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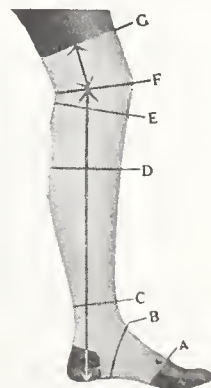


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CALIFORNIA AND WESTERN MEDICINE

VOLUME XXVI

JANUARY, 1927

No. 1

TREATMENT OF OBSTINATE OBESITY

By H. C. SHEPARDSON AND R. E. ALLEN *

(From the Department of Medicine, University of California Medical School)

DISCUSSION by Russel Van Arsdale Lee, Palo Alto; Henry H. Lissner, Los Angeles; Howard F. West, Los Angeles; Samuel H. Hurwitz, San Francisco; H. Lissner, San Francisco; William J. Kerr, San Francisco.

A REVIEW of the literature on obesity is obviously beyond the confines of this paper. Suffice it to say, the metabolism of obese people has been shown to be different from that of normal people by such careful observations as those of Strouse and his coworkers.¹ This difference is not demonstrable by routine metabolic rate determinations, since these determinations are based on the metabolism either per unit of body weight or per unit of body surface. In either event the excessive amount of adipose tissue reflects itself on one factor without having an equal effect on the oxygen consumption. A second factor which has been emphasized particularly by Strouse is, that the obese tend to conserve the body fat and thus accumulate more adiposity, whereas persons of normal build tend to metabolize the fat. It is also not unlikely, as suggested by Sansum, that the abnormal layers of fat act as "an asbestos covering to a stationary engine" preventing the normal radiation of heat. This may be an important factor in preventing proper elimination. However, it should be stated at the outset, that the fundamental reason or reasons why certain individuals become obese is still a matter of speculation.

The foregoing observations lead to the assumption

tion that the obese seem to carry on their fundamental exchange of energy more economically than do normal individuals. It therefore follows that their daily caloric requirement is distinctly lower than is usually assumed, due, at least in part, to the excess inactive adipose tissue. But it is apparent that other factors are involved, since many of these obese individuals can be placed for reasonably long periods on the lowest possible caloric intake compatible with health (a diet one-half to two-thirds the basal caloric requirement, computed for their age, weight and height, but containing approximately the normal protein requirement) without producing an excessive or even adequate loss of weight. Weight may be lost to a certain level beyond which further reduction is impossible by dietary measures alone. Actual starvation, it is true, will produce further weight loss, but not without muscular enfeeblement and general constitutional damage. Most of these people lose weight for a time while on such low restricted diets, but this loss of weight, which represents loss of useless adipose tissue, occurs surprisingly slowly, and rarely at a rate proportionate to the marked reduction in caloric intake.

A majority of obese individuals show recognizable evidence of endocrine dysfunction, apparent by the distribution of fat, abnormal distribution of hair, disturbances in the menstrual cycle, underdeveloped genitalia, etc. Furthermore, in many cases of adult obesity it will be found that they were of normal stature and weight prior to adolescence. Hence it is reasonable to assume that their obesity is attributable to the profound changes which take place at that time. Therefore, in certain cases at least, when the limit of reduction by diet is reached, the addition of glandular medication may produce further loss of weight even though the caloric intake be increased to or slightly above the basal requirement. It should be particularly emphasized that the glandular extracts should be added one at a time and the dosages kept well below the point of toxicity. This makes it imperative that the patient be kept under constant supervision and the medication be stopped or reduced at the onset of the slightest evidence of intoxication.

Sometimes weight reduction eventually ceases, either temporarily or permanently, even on the combined treatment, while the patient is still considerably above the ideal weight for his stature. In such cases, however, the body configuration, as evidenced by various circumferential measurements, undergoes further changes and the adiposity becomes redistributed. If treatment is persisted with, further weight reduction may eventually occur.

*H. C. Shepardson (204-08 Fitzhugh Building, San Francisco). M. D. University of California, 1924; A. B. University of California, 1920; M. A. University of California, 1921. Graduate study: University Hospital, San Francisco, 1923-24. Previous honors: Lieutenant Medical Corps, World War. Present hospital connections: Assistant visiting physician, University of California Outpatient Department. Scientific organizations: Sigma X, San Francisco County Medical Society, C. M. A., A. M. A., California Academy of Medicine. Present appointments: Assistant in Medicine, University of California; Captain, M. O. R. C. Practice limited to Medicine since 1924. Publications: "A Case of Tetania Parathyreopriva Treated with Collip's Parathyroid Extract" (with H. Lissner), Endocrinology, October, 1925.

Robert Emmet Allen (1439 Fifth Avenue, San Francisco). M. D. University of California, 1922; A. B. University of California, 1918. Graduate study: Intern University of California Hospital, June, 1921-22; assistant resident, University of California Hospital, Department of Medicine, June, 1922-23; resident, Physiatric Institute, Morristown, N. J. (F. M. Allen, M. D.), July, 1923-March, 1924; assistant in medicine, University of California Hospital, April, 1924-July, 1926. Present hospital connections: Instructor in Medicine, Department Metabolic Diseases, University of California Medical School. Scientific organizations: San Francisco County Medical Society, C. M. A., A. M. A. Present appointments: Instructor in Medicine, University of California Medical School. Practice limited to Medicine since July, 1925.

Lisser,² in a paper on the frequency of endogenous endocrine obesity, gave it as his opinion that endocrine obesity was far more common than was generally appreciated; and he believed the prevailing view, that the great majority of obese individuals owed their adiposity to excessive food intake and lack of exercise to be erroneous, and that it failed to recognize the underlying factor responsible for the tendency to gain. He stressed the fact that, in his observations, many corpulent people were surprisingly small eaters, just as many slender persons consumed large quantities of food without gaining weight. At the same time he pointed out the difficulty of submitting adequate scientific proof for his contentions, stating that for this purpose it would be necessary to confine a series of obese persons (who were not ill enough to require such incarceration) for many months in a metabolic ward under strictly controlled conditions where one could be absolutely certain of their exact food intake.

With these facts in mind, we have begun a study of the effects on the extreme obese of reduction in diet to the lowest possible point compatible with health, together with the later addition of endocrine products. We wish this to be considered a preliminary report, but we feel that sufficient data has been obtained to warrant its presentation. Two case records are presented, selected from a fairly large number as representative of the more difficult problems encountered in the treatment of obesity and the results obtained with this type of combined therapy. It may be added that the accuracy of the data presented can be vouched for; also that it constitutes, on a small scale, scientific proof of Lisser's clinical deductions.

CASE RECORD

R. M. UCH, No. 125714. A married American woman of 26 years entered the University of California Outpatient Department August 26, 1925, complaining of obesity and partial amenorrhea. Her father, who died of "spinal trouble" at the age of 47, was of normal stature and weight, but her mother, who is living, is considerably overweight. The only other living member of the family is a sister, whose weight is normal. The patient married at the age of 19, and, although libido is normal, has never been pregnant in spite of the fact that no preventive measures were taken. Her health has been very good. She had pertussis as a child, scarlet fever at the age of 12, and possibly diphtheria during the same year. Her birth weight is not known. She states, however, that she has been told that as an infant she was somewhat undernourished. For as long as she can remember she has been markedly overweight. Her greatest weight of 300 pounds was reached eight months prior to entry. Her height is 5 feet 7½ inches. Her weight on August 26 was 276.1 pounds (125.5 kg.) (with clothes), and she had been taking 4 grains of Armour's thyroid extract daily for some time previous to that date, on advice of her family physician. Aside from some palpitation and slight dyspnea on exertion, she had no symptoms other than the obesity and menstrual derangement. She perspired normally, had no preference for either cold or warm weather, and reacted normally to changes in temperature. Her menstrual history is quite interesting. Catamenia began at the age of 13½ years, has always been irregular, the intermenstrual period varying from five months to twenty-eight days, the average being from two to three months. Each period extended over approximately three days and was normal in amount. Her last period occurred five days prior to her initial visit.

Physical examination was essentially negative except for slight hypertrichosis of her face, extraordinary adi-

posity which was largely of girdle distribution, and pulse rate of 100. Blood Wassermann, routine urine examination and blood count were negative. Basal metabolic rate done August 29 was 18.3 per cent plus, which probably reflects the effect of the thyroid extract she had previously taken. Her circumferential measurements are shown in Figure 1.

FIGURE 1
Circumferential measurements were as follows:

| | Sept. 1 1925 | Dec. 14 1925 | Feb. 5 1926 | Aug. 24 1926 |
|---------|-----------------|-----------------|----------------|-----------------|
| Weight | 276.1 lbs. | 240 lbs. | 224 lbs. | 196½ lbs. |
| Neck | 15½ in. | 14½ in. | 14 in. | 13½ in. |
| Chest | 47 in. | 41¾ in. | 40 in. | 37¾ in. |
| Bust | 52¾ in. | 48 in. | 46¾ in. | 43 in. |
| Waist | 47½ in. | 43¾ in. | 40½ in. | 35½ in. |
| Abdomen | 59 in. | 53 in. | 49 in. | 43 in. |
| Hips | 50 in. | 46½ in. | 45½ in. | 41¾ in. |
| Thigh | 28 in. | 27¼ in. | 25¼ in. | 24 in. |
| Calf | 16 in. | 14½ in. | 14½ in. | 13½ in. |
| Arm | 16 in. | 14 in. | 13¼ in. | 12 in. |

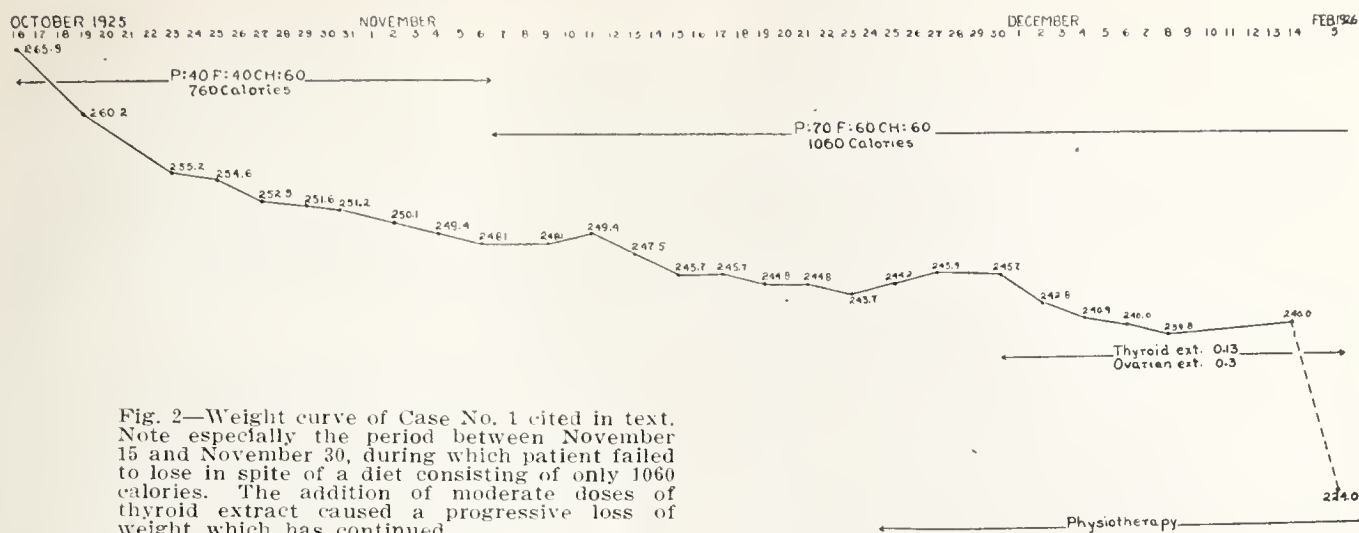
She entered the University Hospital October 16. On that date her weight was 266 pounds (120.9 kg.) without clothes. She was placed on a diet of P:40 F:40 CH:60 (760 calories). The accompanying chart shows the weight changes which occurred. It will be noted that from October 16 to November 6 her weight loss was 17.8 pounds (8.1 kg.). Because of the rapidity of weight loss and possible injurious effects, her diet was raised to P:70, F:60 CH:60 (1060 calories). She was feeling quite well and there was no loss of strength. She complained of hunger for one-half to one hour before each meal. Immediately following this increase she showed a slight gain in weight (1¼ pounds) in four days and then lost slowly until November 15, when she weighed 245¾ pounds (111.7 kg.). From November 15 to November 30 there was no change in weight. The diet remained absolutely unchanged, and during the last five days of this period she exercised twice daily for twenty minutes under the supervision of the physiotherapist. Physiotherapy was instituted at this time, primarily to determine the condition of her musculature and was continued to maintain good muscle tone. She had, accordingly, lost twenty pounds in four weeks on a diet of 760 to 1060 calories, and for two weeks thereafter failed to lose any more, despite the low caloric intake.

On December 1, thyroid extract (Armour) gr. 1 (0.065 gm.) twice daily was started. It should be stated at this point that on October 27 her basal metabolic rate was 1.5 per cent plus. Following the institution of thyroid substance, a further loss in weight ensued. This amounted to 5.7 pounds in two weeks, and on December 14 she weighed 240 pounds (109 kg.). Because no menstruation had occurred since September 9, ovarian extract gr. 5 (0.3 gm.) three times daily was started December 2. She was discharged from the hospital December 8, with instructions to exactly follow the last diet she had received in the hospital and to continue with the thyroid and ovarian extracts.

We saw her next on December 14, at which time she weighed 240 pounds, and her circumferential measurements on that date were as shown in the chart. On February 5, 1926, two months later, her weight was 224 pounds (101.7 kg.). She had, therefore, lost 22 pounds more on thyroid extract, her caloric intake remaining the same as it was during the period when no thyroid was given. She has been exceedingly careful with her diet and medication, and there was not the slightest evidence of thyroid intoxication. Because of the fact that she anticipated a trip which would extend over a considerable period of time, she was advised to continue her diet, but to reduce the thyroid extract dosage to gr. 1 (0.065 gm.) daily for three days each week and gr. 2 (0.13 gm.) daily for the remaining four days. She continues to take ovarian extract gr. 5 (0.3 gm.) three times daily, and her menstrual cycle is now normal.

To recapitulate, this patient lost twenty pounds in four weeks on an accurately controlled low caloric intake, then ceased losing, although the diet remained the same; she lost twenty pounds more when placed on thyroid extract, the caloric intake being unchanged.

A. M. UCH, No. 53496. A married American woman, age 37 years. She entered the University of California



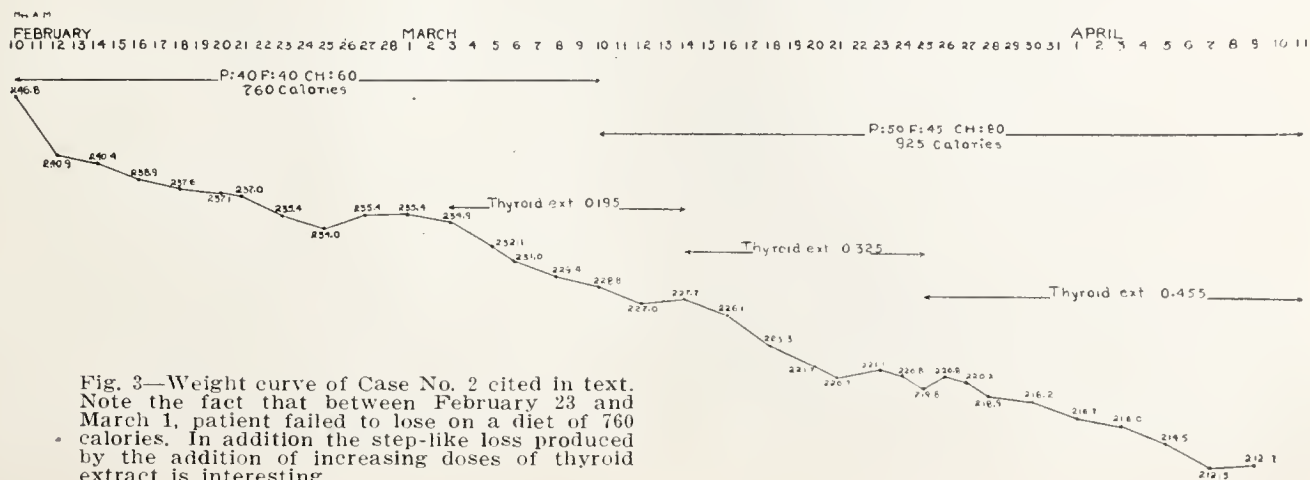
Hospital February 10 for treatment for obesity. Her mother and maternal grandmother were of average height but overweight, although neither was ever known to have weighed more than 180 pounds. Four sisters and five brothers were of normal stature and weight. She has lived in most of the Western states. She had measles, mumps, pertussis, varicella, and variola before 12 years of age, several severe attacks of tonsillitis during childhood, "summer diarrhea" at the ages of 8 and 9, influenza with pneumonia and pleurisy at the age of 28, at which time she was in bed six months, and erysipelas at the age of 35. She was married at the age of 16 and had three pregnancies before the age of 21. The first two children died shortly after birth on account of "defective hearts," and the third pregnancy terminated spontaneously at the sixth month. She has not been pregnant during the past sixteen years, although no preventive measures have been taken. Menstruation began at the age of 12 and was quite irregular until marriage, after which the periods became regular (every twenty-eight days), but continued to be quite scanty and accompanied by considerable dysmenorrhea. The amount of flow gradually diminished until admission, when she practically had an amenorrhea. As far back as she can remember she has been obese. At the age of 16 she weighed 135 pounds; at 28 she weighed 180 pounds; at 33, 190 pounds; and at 36, 200 pounds. During the year prior to her coming to the hospital, her weight increased 46 pounds, and on admission she weighed 246.8 pounds (112.2 kg.).

Physical examination was essentially negative except for marked generalized obesity and slight tenderness to deep palpation over the entire abdomen. Routine blood count, blood Wassermann, and urine examination were negative. Basal metabolic rate on February 12 was 5 per cent minus. X-ray films of the skull were negative. She was placed on a diet of P:40 F:40 CH:60 (760 calories). During the first week she lost weight fairly rapidly. By February 23 (two weeks) her weight had reached 235.4 pounds (107 kg.) (loss of 11½ pounds), but remained at

or slightly above this figure until March 1. Because of failure to lose any further on 760 calories, she was given thyroid extract (Armour) gr. 3 (0.192 gm.) daily in three doses. In the next two weeks she lost 8½ pounds (March 11 her weight was 227 pounds—103.2 kg.). On account of beginning loss of appetite and mild abdominal cramps, her diet was increased to P:50 F:45 CH:80 (925 calories). Since there had been no evidence of thyroid toxicity other than the loss in weight, the dosage of the extract was increased to gr. 5 (0.3 gm.) daily on March 14, at which time her weight was 227.7 pounds (103.5 kg.). On March 26, her weight having dropped to 220.8 pounds (100.4 kg.) and remaining stationary, a further increase of the thyroid extract to gr. 7 (0.45 gm.) was made. By April 6 minor objective toxic signs were apparent, although she felt perfectly well. Her basal metabolic rate was obtained and was found to be 11.6 per cent above the theoretical normal. Her weight was 212.5 pounds (96.6 kg.). By April 15, without change of diet or medication, her weight had dropped to 209 pounds (95 kg.) and she felt quite well. The slight nervousness exhibited April 6 had apparently been due to the onset of menstruation and was absent April 9.

To summarize: From February 10 until February 25, this patient lost 12.8 pounds on a 760 caloric diet. During the following week her weight remained stationary. She was then placed on thyroid extract and, in spite of the fact that her diet was increased to 925 calories, she has lost twenty pounds more. Her weight loss is continuing.

Discussion—These two cases are given in detail because of the fact that, due to our present inability to adequately classify the various types of obesity, collective statistical data covering the loss of weight in the obese is of little value. We have considered it better for the present to individualize our therapy rather than apply routine methods to all patients,



for it is realized that the types vary widely and their treatment should vary accordingly.

The case studies given show the following interesting points.

1. The basal metabolism, as determined by the ordinary methods, was within normal limits, yet it is apparent that their actual metabolism was decidedly abnormal.

2. In each instance the diet was reduced to a level considerably below the basal requirement without impairment of health, and a definite loss of weight resulted beyond which further reduction was unobtainable by dietary restriction alone.

3. The subsequent addition of the indicated glandular medication resulted in further loss of weight and permitted an increase in the diet to a point where moderate exercise produced no untoward effect, exercise which might have been harmful with the previous extremely low caloric intake.

4. Thyroid extract was used as a general stimulant to metabolism rather than to supplement a thyroid deficiency which neither of these cases showed.

We do not advocate this form of treatment in all cases of obesity. It was employed in the study of the more difficult cases when they could be kept under close observation. The opportunity is taken of warning the profession generally against instituting any form of reduction régime which produces too rapid loss of weight. The consequences may be disastrous. This applies to diet cures as well as gland cures.

Further studies of these as well as other cases are being carried on in an effort to gradually reduce them to normal stature. After the return to normal weight or to a point slightly below the calculated normal there may occur a rearrangement in the weight-control mechanism which will result in a maintenance of normal stature without undue limitation in diet.

REFERENCES CITED

1. Strouse, Solomon; Wang, C. C.; and Dye, M.: Studies on the Metabolism of Obesity, II, Basal Metabolism. *Arch. Int. Med.*, 35:275 (September) 1924; Wang, C. C.; Strouse, Solomon; and Saunders, A. D.: Studies on the Metabolism of Obesity, III, The Specific Dynamic Action of Food, *ibid.* 34:573 (October), 1924; The Metabolism of Obesity, IV, The Distribution of Energy Production After Food, *ibid.* 36:397 (September), 1925.
2. Lissner, H.: The Frequency of Endogenous Endocrine Obesity and Its Treatment by Glandular Therapy. *Calif. and Western Med.*, 1924, Vol. 22, p. 509, 514.

DISCUSSION

RUSSEL VAN ARSDALE LEE, M.D. (300 Hamilton Avenue, Palo Alto, California)—Patients such as the ones reported by Doctors Shepardson and Allen are not infrequently encountered. They have normal basal metabolic rates and when placed on a diet below their estimated requirement do not lose. It is, of course, obvious that unless the laws of the conservation of mass and energy are erroneous no patient in fluid equilibrium can consume an amount of food below his requirements and not lose weight. If the patient be kept continuously on such a diet, and if water or some other substance is not retained within the tissue, he must lose weight. I would welcome some explanation from the authors or at least a theory as to why this loss does not occur.

In considering the matter of obesity it may be that

individuals who show pathological obesity may be accumulating a fat which varies in chemical composition from the fat of normal individuals. There is some experimental evidence that this is so. Generations of rats bred for hereditary obesity develop fat which is relatively unsaturated as compared with the fat of normal rats; the lower content of hydrogen in this fat would, of course, mean that less energy was required for depositing this fat, also that less energy is consumed when it is burned. Some such difference in the fat composition may explain the apparent paradox (because it must be only apparent) that the obese patient, eating less than he consumes, maintains his weight.

HENRY H. LISSNER, M.D. (Brockman Building, Los Angeles)—The paper by Doctors Shepardson and Allen on the treatment of obstinate obesity is a particularly timely one. Much has been written about diet and weight reduction in both medical and the lay press, but this paper presents the most logical and scientific discussion of the subject that has been approved in some time.

Two points stand out, and should be emphasized: (1) the individualization of treatment, either from the dietetic or endocrine standpoint; (2) the basal metabolic studies as determined by ordinary methods were within normal limits in many cases, yet the actual metabolism was decidedly abnormal.

Under the first heading the warning against the promiscuous use of thyroid extract for the reduction of weight is to me the most important subject in the paper, and this knowledge should be broadcast and made general so that physicians and laymen may understand the danger of promiscuous thyroid therapy unless the same is definitely indicated. It will also prevent the rather careless and all too frequent prescribing of combinations of glandular extracts and will keep therapeutic indication of gland therapy on a plane with other modern scientific developments of medicine.

In my study of obesity I have found that the estimation of metabolism has been of little or no value as an indication for the type of glandular therapy to be used, except in evident thyroid dysfunction.

As has been pointed out by Shepardson and Allen, many obese individuals do not show any abnormality of basal metabolism. Diet has but little influence on their weight. Their fat distribution is suggestive of pituitary insufficiency and in these pituitary substance given by mouth, if augmented by hypodermic injections of pituitrin until weight reduction is started, the necessity of giving larger doses of thyroid extract is obviated.

I have found it unnecessary to give thyroid extract in as large doses as has been used by the essayists, and that following the method suggested above there are no untoward effects or thyroid symptoms produced.

Gain in weight of adolescents is also controlled by administration of pituitary substance and very small doses of thyroid extract.

To sum up, the most important points brought out by the essayists are the individualization in the management of all patients with obesity and the careful administration of thyroid extract.

HOWARD F. WEST, M.D. (1032 West Eighteenth Street, Los Angeles)—Insurance companies consider that individuals of middle life who are fifty pounds overweight have a 56 per cent higher death rate than those of normal or slightly underweight. In spite of such warnings, our knowledge of the fundamental faults in obesity is much too meager. It is to be feared that nonmedical people—perhaps chiefly for esthetic reasons—are more interested in this problem at the present time than are physicians. There is a real danger that many individuals are doing themselves actual harm by trying "reduction cures."

Further studies of the type begun by Doctors Shepardson and Allen should be encouraged. As mentioned in their article, the work of Strouse and associates, among others, has indicated some of the variations in metabolic response to different types of food substances in these individuals suggesting a tendency to economize especially on fat. These studies have been largely in the resting state, and an interesting investigation would be to determine the "cost of exercise" in this same group. Perhaps here, too, variations from the normal will be found and

further light shed on the practical aspects of dietetic and endocrine management.

The question raised by Doctor Lee is quite pertinent. Chemical studies on the composition of the fat deposits in the obese resistant to dietary restrictions may be expected to show variations from the usual. Perhaps it is at this point that glandular products have an effect in addition to stimulating the total metabolism.

This work is of great value, and it is to be hoped that the authors will extend their studies and continue to add much needed practical information for these truly unfortunate individuals.

In the meantime let us not forget that there are some people who are too fat because they eat too much, and that the indiscriminate use of thyroid preparations may lead to trouble.

SAMUEL H. HURWITZ, M. D. (490 Post Street, San Francisco)—Concerning obesity, DuBois has made the very apt comment that the amount of scientific information which we have regarding it is in marked contrast to the large amount of public opinion on this subject. This popular interest is due to the broadcasting by life insurance companies and life extension institutes of the important fact that overweight is very prevalent in this country, and that obesity predisposes to the development of certain of the degenerative diseases, such as diabetes and cardiovascular disease.

Every contribution which adds to our knowledge of the pathogenesis of obesity and formulates some plan of rational treatment is therefore of great value. The paper by Shepardson and Allen does this for a not uncommon type of obesity observed in women. These patients at times show a considerable grade of arterial hypertension which they tolerate well. In them a reduction of weight by conservative methods will usually be followed by an appreciable drop in the systolic blood pressure and a lessening of the mechanical load carried by the cardiovascular system.

In my experience the best results in this type of obesity are obtained by conservative reduction methods. Much to be deplored is the too reckless curtailment of the protein of the diet, resulting in excessive nitrogen loss, undernutrition, secondary anemia, and diminished vitality. The objective in treatment should be a lowering of body weight without a diminution in vitality and efficiency.

H. LISSER, M. D. (Fitzhugh Building, San Francisco)—Many people eat too much and exercise too little and become "stout" (10 to 25 pounds overweight), but unless they are positive gluttons they rarely become "obese" (30 to 150 pounds overweight). The discussant is convinced that the majority of very fat persons are comparatively small eaters; many of their companions at table eat the same amounts and preserve normal proportions, indeed one or the other of them probably belongs to the "constitutionally slender" type and eats twice as much but remains thin. Obviously caloric intake does not suffice as an explanation for this seeming paradox. The medical profession will take a big step forward in understanding undernutrition and overnutrition when it finally shakes itself loose from the sacred dictum which says: A person will eat off his own body if his food intake is below a certain caloric value, and conversely will gain if his food intake is above a certain value; this law may apply to the great mass of average normal folk, but it does not hold true for the pathologically obese or slender individual.

Mason of McGill University has recently shed some light on this enigma. He found in a scrupulously accurate investigation that pathologically obese and slender persons display an abnormal specific dynamic reaction to foods. That is to say, the abnormally fat individual does not produce anything like the amount of heat from a given amount of protein that a normal person does. He was able to maintain several such patients on the astoundingly low ration of 250 calories per day over a period of many months, without acidosis, and in excellent health and vitality; and in line with Doctor Lee's supposition he found that a diuretic was periodically necessary because the obese retain fluid. Most interesting was the finding that after a loss of 50 to 100 pounds such patients,

when retested, still display the same metabolic abnormality which they did prior to reduction.

Conversely, Mason observed an emaciated young woman who, strangely enough, lost weight on a high-fat diet and gained on a low-fat diet. Why? Because her reaction to a meal of fat was an extraordinary production of heat, two to three times normal. She had a metabolic idiosyncrasy to fat; another patient showed an abnormal response to carbohydrates, another to protein. These interesting observations begin to explain why some persons will not lose on a 1000 to 1500 caloric diet and why others will not gain on a 4000 to 5000 caloric diet.

Even so, and granting the probability that future investigations will confirm Mason's contentions, the question must still be answered, what fundamental derangements underlie these metabolic anomalies? Why does one person produce less heat in response to a protein meal and another react with too much heat to the same meal? We do not know. But it seems reasonable to suspect from somewhat analogous happenings in the endocrine disease, diabetes mellitus, that disturbances of internal secretion are in some way concerned. The exact relationships remain to be solved. Meanwhile much can be accomplished in the practical treatment of obesity by a judicious combination of dietary restriction and glandular stimulation.

Finally, just a word about thyroid extract. Of course, the laity should not use this drug except under a physician's direction and it is all very well to warn the public of its dangers, but physicians themselves are becoming unnecessarily panicky about its use. Any physician who cannot recognize the abundant signs of thyroid overdose and check his treatment with estimations of the basal metabolic rate, had better not prescribe thyroid extract. No potent remedy is harmless if unwisely administered, whether it be thyroid extract, digitalis, insulin, salvarsan, parathormone, diphtheria antitoxin, or surgery; only impotent preparations can be prescribed recklessly and indiscriminately.

Doctors Shepardson and Allen are to be commended for driving another wedge into traditional conceptions which, let us hope, will soon become obsolete. Further work of this type is much to be desired.

WILLIAM J. KERR, M. D. (University of California Hospital, San Francisco)—The experience of the authors with selective cases of obesity showing that certain individuals will not lose a great amount of weight, even though on a very low caloric diet, is of great interest. An explanation for this peculiarity is not easily found. If one studies carefully the charts of such patients, it is suggested that if the restrictions are continued long enough, there is eventually a balance and there may be sufficient water lost to cause a greater loss of weight after a few days. I am firmly convinced that there are differences in individuals and that certain ones will not lose weight even on a greatly restricted diet, while others who are thin will not gain weight, irrespective of the amount of food eaten. This, as far as I know, is not definitely explained by the basal metabolism rate. Whether the suggestion made by Doctor Lee in discussion of a difference in composition of the fat has a bearing here I am unable to say, although it is possible that such is the case.

Any discussion of the treatment of obesity eventually leads us to some comment of the rôle of the endocrine glands in producing obesity and the use of such gland products in its treatment. I have for many years used thyroid extract and pituitary extract as adjuncts in the treatment of obstinate obesity. I have found these to be of great value. Thyroid extract, however, is probably of greater value than pituitary extract depending, of course, upon the type of obesity. I am quite in agreement with Doctor Lissner, who encourages the use of thyroid extract under careful medical supervision. We have in thyroid extract a potent drug, and the use of this drug—just as in the case of other potent drugs—must depend upon indications and the physician must understand the condition of the patient, the toxic symptoms produced by an overdose, and must see the patient often enough to follow the results of treatment. I believe that if such precautions are taken and the patient is sufficiently warned of the dangers of increasing the treatment without direction, we need have little to fear from this drug.

I have watched with a great deal of interest the studies that the authors have made and believe that such investigations will soon lead to a clarification of the problem of obesity. I feel that there are metabolic disturbances in the very obese and the very thin, representing the extremes, which are not expressed in the oxygen carbon-dioxid exchange.

DOCTOR SHEPARDSON (closing)—The writers appreciate the excellent character of the discussion, and are gratified to notice that the opinions expressed harmonize, for the most part, with their own conceptions.

A more recent report of the two cases cited in the paper may be of interest.

Case No. 1 (R. M., U. C. H., No. 125714)—On September 24, 1926, this patient weighed 194.7 pounds, which is 29.3 pounds less than the previous weight reported on February 5, 1926. She has therefore experienced a total reduction of 81.3 pounds in 11.5 months. She is still on a diet consisting of P:70, F:60, CHO:50 (1020 calories) and is receiving thyroid extract (Armour) gr. $\frac{1}{2}$ daily and whole gland pituitary extract (Armour) gr. 9 daily. She is in excellent health.

Case No. 2 (A. M., U. C. H., No. 53496)—On September 30, 1926, this patient weighed 202.4 pounds, which is 6.6 pounds less than the last weight reported in April, 1926. However, she has not co-operated very well, and has therefore not been under observation since June 25, 1926, at which time she weighed 195.8 pounds. Because of her failure to remain under observation, she has not adhered to the prescribed diet and in addition has had no medication whatever. We have been assured that from now on she will report at regular intervals so that a subsequent report may be rendered. This patient has also remained in excellent health.

"Elfin Fat-Reducing Gum Drops" and "Slends Fat-Reducing Gum"—The quacks who prey on women who are overweight or who have convinced themselves that they are overweight have done a thriving business in the past few years. Fortunes have been made in the sale of nostrums, most of which are utterly worthless, and a few of which are distinctly dangerous, sold for their alleged antifat properties. Elfin Fat-Reducing Gum Drops, described as "The Chew and Grow Thin Treatment," are marketed by Pep-Giving Products Co. Inc., New York City. With the trade package come certain diet directions which alone, if followed, might result in a loss of weight. The A. M. A. Chemical Laboratory analyzed the preparation and reported that it was a "gum-drop" coated with varying amounts of a mixture containing essentially sucrose and phenolphthalein flavored with peppermint. The average amount of phenolphthalein was 1.4 grains to each "gum-drop." "Slends Fat-Reducing Chewing Gum" is put on the market either by Slends, Inc., or by Heath Products Inc., New York City. It is claimed that the preparation contains absolutely no thyroid or any other harmful ingredient and that it can safely be given to children. At the same time it is admitted that the drug that is used in the product is extract of poke-root, while the trade package admits the presence of phenolphthalein. From its analysis the A. M. A. Chemical Laboratory concluded that each piece of Slends is a piece of chewing gum (chicle) coated with varying amounts of a mixture containing essentially sucrose and phenolphthalein, flavored and containing a small amount of vegetable extractives. The average amount of phenolphthalein was 1 grain to each piece. From the analysis it appears that if extract of phytolacca is present the amount is insignificant. While phytolacca has long been used in fake obesity cures, in almost every instance it is found to be present in such small quantities as to produce no physiologic effect whatever.—Journal A. M. A.

We should eat cautiously of such food as is solid and most nourishing (for it is hard always to refuse it), such as flesh, cheese, dried figs, and boiled eggs; but more freely of those things which are thin and light, such as moist herbs, fowl, and fish if it be not too fat; for he that eats such things as these may gratify his appetite, and yet not oppress his body.—Plutarch.

DISLOCATIONS OF THE OUTER END OF THE CLAVICLE

By JOHN DUNLOP *

DISCUSSION by John C. Wilson, Los Angeles; James T. Watkins, San Francisco.

THE teachings of the pathology found in dislocations of the outer end of the clavicle, and the suggested remedy in the usual textbooks on the subject, are so at variance that I have thought it timely to discuss some of the more recent operations advised, as well as one which I have worked out; all of which take into account the repair or substitution of the injured tissues involved in the lesions.

In order to understand the mechanism of the dislocation, it is necessary to have a clear conception of the anatomy and function of this most important structure.

The clavicle acts as a yardarm to the entire upper extremity, holding it in the proper relation to the trunk so that it can do its work with the least possible resistance. The shoulder mechanism is held in relation solely by the acromioclavicular joint, less than a centimeter in diameter. The facings of these joint surfaces are slightly up and backward and outward. The structures are held in their proper relations by a very ingenious system of ligaments. First, the joint itself is surrounded by a heavy ligamentous capsule, which ordinarily holds its surfaces in apposition, but this joint gets its real support from the manner in which the clavicle is fixed to the coracoid process. There are two very definite ligamentous bands which tie down the outer third of the clavicle to this coracoid process; the so-called trapezoid ligament, and the coracoclavicular ligament, which extends from the outer inch or so, down to the coracoid process. There is a further ligament, the coracoacromic ligament, which has much to do with the stability of the scapula.

Dislocation of the acromioclavicular joint is nearly always the result of some force which has depressed the point of the shoulder, the acromion process; or a sudden rotation of the scapula, which brings force to bear on these supporting ligaments, thereby producing a tearing of the ligaments. It can thus be seen that any attempt to repair the deformity must take into consideration this destructive process and a repair of the same. The clavicle cannot rise to a very great height unless there is a giving way of the trapezoid and coracoclavicular ligaments, and when this does occur there is a definite tearing of these tissues. In case of a dislocation there is not necessarily a rupture of these ligaments, but a dislocation may occur by a rupture of the capsular ligament about the acromioclavicular joint.

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The nature of the deformity following dislocation varies with the type of luxation. In true dislocation well-marked deformity is evident. The tip of the shoulder is displaced downward, forward, and inward, and the displaced bones may be distinctly felt in their changed positions.

In the literature at my command the pathological mechanism of this dislocation, where given at all, is unanimous, as I have before stated, but there is certainly no unanimity of opinion as to a procedure to overcome it. Some textbooks covering this subject refer to the suture of the ends of the bones; that is, a suture of the clavicle to the acromion; and at times it is suggested to arthrodose the joint. Nowhere have I been able to find mention of a repair or substitution of the injured ligaments controlling the position of the clavicle. Hitherto the results of treatment have been uncertain and seldom completely successful as to restoration either of form or of function. The carrying of heavy burdens is difficult, proving a severe handicap to such laborers as masons, carpenters, porters, etc. Abduction above a horizontal is apt to be prevented permanently.

However, James T. Watkins of San Francisco (*Jour. Bone and Joint Surg.*, Oct., 1925), first gives a proper description of the mechanism of the dislocation, and suggests an operation using fishing line to tie the clavicle down to the coracoid. Watkins also refers to a paper by F. M. Cadenat (*Intern. Clinics*, Vol. I, 27th Series), who proposed the substitution of the inner fasciculus of the coracoacromial ligament for the torn coracoclavicular ligament.

Since becoming especially interested in this subject I have talked with John C. Wilson, Los Angeles, and find that he has done practically the same operation as that proposed by Watkins, only instead of the fishing line he used fascia, which he formed into a heavy suture.

At the time of my first operation I was unaware of any of these methods of procedure. In fact, I rather think that my operation was earlier than either of those mentioned.

It seemed to me that the mere suture of the clavicle to the acromion was of little value, so I attempted what I called an anatomical repair, consisting of a suture of the torn ligaments. It was difficult to recognize individual tissues after the bony structures were identified, so I quilted and re-enforced this coracoclavicular space with whatever tissue I could bring to my assistance, and the tissue over the clavicularacromial joint was also tightened up. The result was excellent, giving a very useful arm to a laborer. This operation was repeated once, and both operations were done at the Los Angeles General Hospital.

While preparing this paper I have had another case where a slightly different operation was performed, differing only, however, in the use of the fascia of the anterior portions of the deltoid for the re-enforcing tissue. I was unable in this last case to identify the torn ligamentous tissue, although the injury was of but one month's standing. This fascia was released in the form of a pedicle, with the pedicle forward to the inner side and tightly sewed to the split edge of the periosteum of the clavicle

and acromion and to the heavy tissues over the coracoid process. There were no special difficulties encountered in the procedure and apparently the dislocation has been overcome, although it is too early as yet to consider this patient cured.

This short paper is given, not with the idea of presenting new operation, but in an effort to bring this subject, apparently so little understood hitherto, down to the more recent contributions which have added much to a real understanding; and in the hope that a more adequate operation than suture of the clavicle to the acromion will henceforth be found feasible.

DISCUSSION

JOHN C. WILSON, M.D. (1136 West Sixth Street, Los Angeles)—Dislocation of the acromioclavicular joint, if not reduced, is a disabling condition. As Dunlop has stated, fixation with an absorbable ligature and arthrodosis of the acromioclavicular joint has been common practice with an end result of questionable value. Since the cause is a rupture of the ligamentous structures binding the clavicle to the coracoid process of the scapula, the cure must lie in their repair or reconstruction.

I have not attempted the repair of the ligaments as recommended by Dunlop, but have reconstructed the coracoclavicular ligament by passing a free fascia lata transplant through the distal end of the clavicle and the coracoid process, pulling it taught and securing it in position with sutures. A stable joint has been the result in four cases. The period of convalescence is comparatively short, averaging about ten to twelve weeks.

We are indebted to Doctor Dunlop for the presentation of this interesting and practical solution of a troublesome problem.

JAMES T. WATKINS, M.D. (909 Hyde Street, San Francisco)—Doctor Dunlop's presentation of his subject is most happy. The clavicle is a strut designed to keep the arm away from the side and permit of such motions as abduction. If you will recall your comparative anatomy you will remember that in certain animals which do not make motions implying abduction, for instance, it is lacking in the hoofed animals like the horse and in others, like the cat tribe, it is rudimentary; whereas in those creatures where abduction is of primary importance it is tremendously important, some of them, like birds, presenting a precoracoid bone which to all intents and purposes is an accessory clavicle.

I do not agree, however, that the coracoacromial ligament has as much to do with the stability of the shoulder as the doctor's remarks would seem to imply. In the first place, it passes from one process to another of the same bone—there is nothing to stabilize there—and in the second, while it apparently forms the dome of the shoulder joint proper, as the doctor has said Cadenat, of the University of Paris, cut its strong inner fasciculus free from its acromial attachment to replace the torn coracoclavicular ligaments without in any way disturbing the function of the shoulder thereby.

The essential thing, the important thing, about my contribution, Wilson's procedure, and Dunlop's operation is not the technique at all. It is the absence of the hazy thinking of the failure to recognize the mechanism, the anatomy and physiology, of the shoulder joint and just what had happened to the structures in that region when a dislocation of the outer end of the clavicle occurred; and all of which had theretofore led to this too often futile stitching together of the ends of the bones only.

Wilson's use of a fascial roll is doubtless good surgery. It has been used elsewhere with success. It implies, however, making a second wound and I do not know what stress it would stand before giving way. The same uncertainty applies to what Dunlop did. I am very glad his results were so gratifying.

In selecting silk fish line of a given tensile strength I knew exactly what I could rely upon—that it would withstand a pull far in excess of any to which the shoulder was likely to be subjected. The objection to the procedure

is the theoretical one that I was introducing into the body a foreign substance. On the other hand, I had as my justification Lange's experience of over 2000 cases, as well as my own; which is that if the silk is boiled for one hour in 1-1000 sublimate, dried absolutely in the autoclave, then boiled for a half hour in paraffin and left there till the moment it is to be used; when the paraffin is again melted the tissues invariably tolerate it.

If surgeons do not take these precautions, they may or may not "get away with it"; but that "who trust to luck may expect bad luck" is as true of surgery as it is elsewhere.

PRIMARY CARCINOMA OF THE LUNG†

By JULIUS SHERMAN *

Primary carcinoma of the lung, formerly considered a rare disease, has of late years shown a markedly increased prevalence. Early diagnosis is difficult owing to the insidious character of the symptoms and the tendency to simulate those of other diseases, such as tuberculosis, cardiorenal diseases or other inflammatory processes of the lungs. It is difficult to make an early diagnosis even with the roentgen ray because of the variability of the location of the tumor and its secondary complications such as pleural effusion or inflammatory reactions in the lung tissue. Early diagnosis is the most important factor in the treatment. Surgery affords the best means for a possible cure or for prolonging the life of the patient. The success of the surgical treatment depends upon the location and type of malignancy.

IT is not uncommon to find a malignant growth in the lungs or mediastinum, metastatic in character, the primary seat of which may be in the stomach, pelvic organs, breasts, bones, kidneys or any other part of the body, but it is more rare to find a malignant growth originating in the lung. Of late years, however, the recognition of primary carcinoma of the lung has shown a marked increase. In the early stages of a malignancy arising in the lung tissue the diagnosis is rather difficult and frequently confused with inflammatory processes of the lung tissue or early tuberculosis. Even roentgenologically an early diagnosis of the presence of this disease in the lung is extremely difficult to make. The symptoms themselves may be misleading, being frequently confused with the symptoms of tuberculosis, cardiorenal, gastrointestinal and other inflammatory diseases.

ETIOLOGY

The etiological factors in this disease are several in number. The older, as well as more recent, writers agree that a chronic irritation is the most important cause of primary carcinoma of the lung. Chronic irritations may be due to trauma and infections of the respiratory tract. As to this there is no definite proof available. The number of instances of chronic pulmonary infections unaccompanied by development of carcinoma would seem to be evidence against it. However, the existence of lung cancers found in miners supports the theory

that chronic irritation precedes cancer, illustrated by the frequent occurrence of cancer of the lung in the Schneeberg miners of ores containing arsenic and cobalt. Inciting trauma, a blow or other injury to the lung tissue, may have been received from one to five years previous to the development of the cancer. Respiratory infections of long standing such as tuberculosis, influenza, syphilis and other diseases of bacterial origin may, through chronic irritation of the pulmonary tissue and inflammatory hyperplasia of the lung, give rise to a new growth.

It has been claimed that the prevailing practice of tarring roads and streets has brought about an increased incidence of cancer due to particles of tar irritating the lungs, which is an experimental method of producing cancer in the lungs of animals. There is also the possibility that the increased inhalation of irritating gases from automobiles and industrial processes constitute important factors in the cause of lung cancer. Excessive smoking of cigars and cigarettes and the inhalation of their fumes may possibly be an etiological factor. Statistics indicate that this disease is more common in men than in women.

CASE I—J. B., aged 56, a contractor, was first seen on October 12, 1924. During the previous year the patient had been subject to morning coughing spells without expectoration. This condition was thought to be an ordinary bronchitis requiring no medical attention. In February, 1924, there developed attacks of dyspnea, dryness of the throat and a choking sensation, brought on by physical exertion. He was treated for "catarrh" and apparently improved. Shortly afterwards gastrointestinal disturbances set in. These were characterized by gas, distension, a feeling of uneasiness in the epigastrium and some eructations, as well as a loss of appetite and some loss of weight. In June, 1924, he consulted Dr. W. P. Read and Dr. Leo Eloesser.

In the course of an x-ray examination in July, 1924, a large tumor, occupying almost the entire right lower lobe was found (Figures I and II). There was no indication of metastasis. The patient was given a series of deep roentgen ray treatments, after which he left for the country. He regained 22 of the 38 pounds he had lost since the onset of this disease.

About October 1, he returned complaining of an increasing dyspnea and epigastric distress, and again he began to lose weight. It was at this time that the patient came under my care. Examination revealed some emaciation and extreme dyspnea upon the slightest exertion. His fingers were noticeably clubbed. He suffered from an irritating cough with slight expectoration, which was not blood-streaked and he gave no history of hemoptysis. The chest examination showed definite dullness and flatness in the right chest, extending almost to the clavicle. The dullness was more marked toward the base of the lung. Neither breath sounds nor rales were heard over this area but there was some evidence of compensatory breathing in the left lung. The heart was enlarged and pushed toward the left axilla. The sounds were very irregular and feeble as compared with the strength of the radial pulse, giving definite evidence of an adherent pericardium. Blood pressure was 130 systolic, 70 diastolic. The abdomen was normal. The extremities, except for the clubbing of the fingers and toes, were also normal. The temperature rose occasionally to 99.6 F. The Wassermann reaction was negative. He had a hemoglobin of 75 per cent. The red cells numbered 4,900,000; the white cells 15,000, of which 80 per cent were polymorphonuclears, 16 per cent lymphocytes and 4 per cent transitionals. The urine was straw colored, acid in reaction; the specific gravity was 1015 and contained a slight trace of albumen, a few hyaline casts, a few epithelium and pus cells and bacteria. Examination of the stools were positive for occult blood; the sputum showed no tubercle bacilli.

† Read before the Medical Section at the annual meeting of the California Medical Association, May, 1926.

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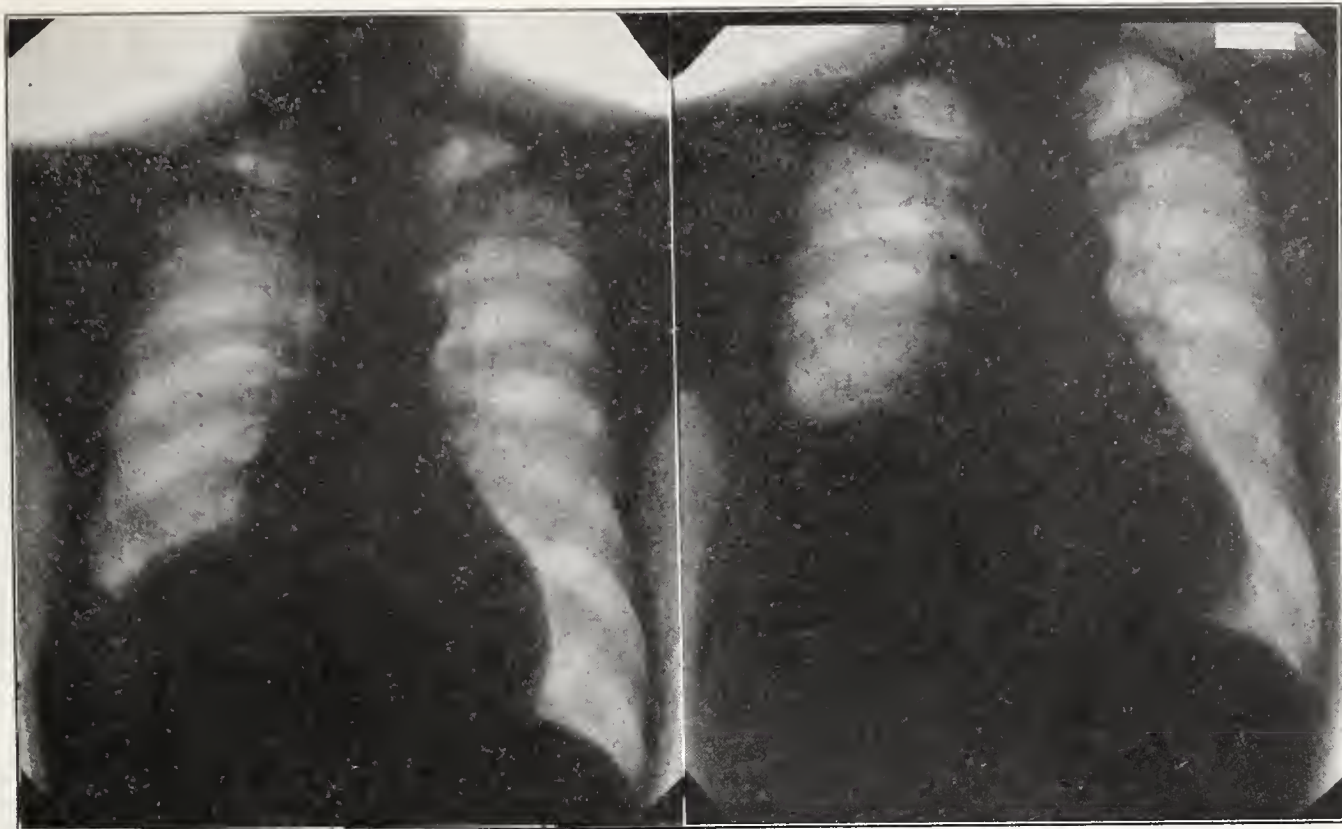


Figure I—June 27, 1924. This shows a rounded smooth shadow of increased density at the right base extending up to the 8th interspace. This is sharply outlined above in the axilla and lies posteriorly.

Figure II—October 7, 1924. This film shows the tumor at the base obscured by fluid in the pleural cavity. There is also a definite bottle-shaped enlargement of the cardiac shadow, due to effusion within the pericardium.

On October 18, the patient entered Mount Zion Hospital. Thoracentesis was done and 500 cc. of yellowish fluid was obtained, the specific gravity of which was 1015. Red and white blood cells were found in the fluid; the white in the proportion of 14 per cent polymorphonuclears to 18 per cent lymphocytes. The Rivalta test was slightly positive. There were no bacteria found on the smear or in the culture. Guinea-pig inoculations proved to be negative for tuberculosis. Thoracentesis was repeated four times at three-day intervals. The relief from the dyspnea was marked, particularly after the first tapping. The last two tapplings showed an increase of macroscopic blood. The patient was put on digitalis and shortly afterward showed great improvement. After the second tapping, however, he developed an aphonia which persisted until the day of his death. This aphonia proved later to be due to a paralysis of the right vocal cord.

A roentgenogram was taken immediately after the first tapping (Figure III), which showed a round, smooth shadow of increased, uniform density in the right lower lobe, resembling the shadow found in the x-ray taken in June. This was lying well posteriorly, with the center over the tenth rib (as shown in Figure III). There was a thickening of the interlobar septum between the middle and lower lobes on the right. A small amount of fluid in the right pleural cavity was found. There was no evidence of metastasis in the left lung, mediastinum or bones. We could not account for the paralysis of the recurrent laryngeal nerve. At a consultation with Drs. Herbert C. Moffitt and Harold Brunn a diagnosis of primary carcinoma of the lower lobe of the right lung was made and operation advised. The operation was performed by Brunn under local anesthesia on November 13. The right thoracic cavity was entered by resecting the 7th, 8th, 9th, 10th and 11th ribs posteriorly. This tumor was found to be hard, somewhat nodular, and adherent to the diaphragm and also to the lung tissue, but it did not invade the latter. In separating the tumor from the middle lobe, a mass of necrotic material escaped from the center of the tumor. As much of the tumor as possible was removed, and its bed cauterized. The cavity was packed with petrolatum gauze. The cauterization was repeated twice after the operation.

The microscopic report of the tumor from Dr. G. Y. Rusk, department of pathology, University of California Medical School, was as follows: "The examination was made from an unusual number of sections taken from various portions of the specimen. About one-third of these showed the tissue entirely necrotic, in places having lost all structure and in other areas retaining an outline of tissue form. It resembled coagulation necrosis (Figure IV).

Other portions of tissue showed intense fibrosis varying considerably in the number of cells and in evidences of old organization present. Accompanying these were remnants of lung tissue which showed an intense interstitial pneumonia with varying degrees of infiltration by lymphocyte and plasma cells. Endarteritis was also present to a marked degree. Alveolar epithelium covered these irregular inflammatory areas and in certain areas there was a distinct overgrowth of such epithelium extending into the denser fibrous tissues below. These abnormal epithelial cells were uniform in size, grew diffusely, and showed no tendency to adenomatous formation on the one hand, or cornification on the other. Among the cells many were seen undergoing mitotic division. While the connection between the epithelium of the alveoli and the new growth was marked in some places, in other sections small islands of the invading epithelium were seen deep in the tissues.

Diagnosis—Chronic interstitial pneumonia with marked necrosis. Epithelioma of the lung apparently arising from alveolar epithelium.

From shortly after the operation to January 8, 1925, on which date the patient left the hospital, he was able to walk around and showed marked improvement. There was a decided decrease in the clubbing of his fingers, the hemoglobin increased to 80 per cent, he gained in weight and his color improved. There was no change, however, in the paralysis of the recurrent laryngeal nerve, his voice remaining as husky as before.

On January 20, a roentgen-ray examination of his chest did not reveal metastasis in the lung tissue or mediastinum. The marked improvement which followed the operation, was of short duration. He developed attacks of angina pectoris and suffered with suffocation at night. He was frequently kept awake with pain in the right side

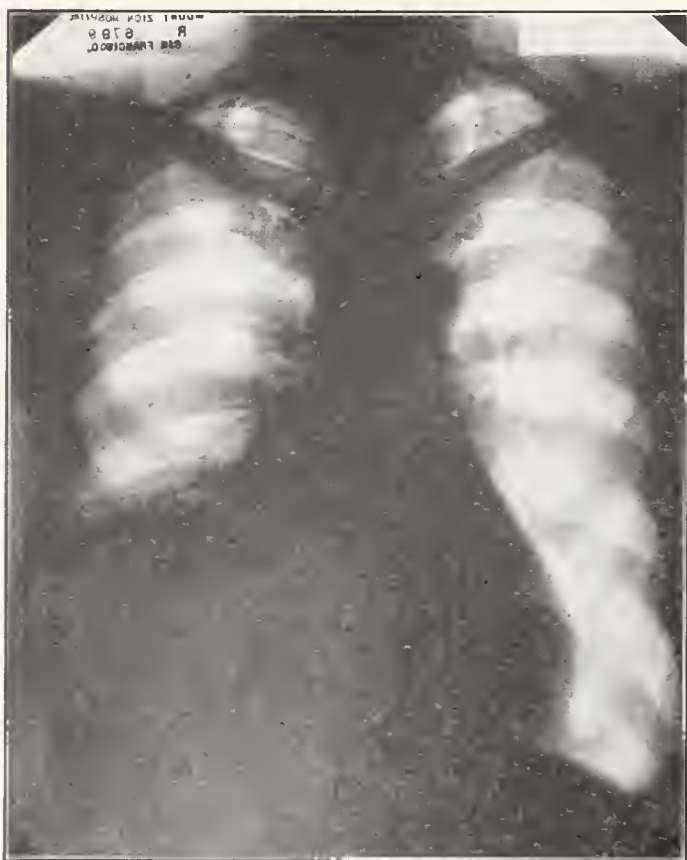


Figure III—October 22, 1924. The fluid has been partially withdrawn from the pleura and the fluid is partially absorbed from the pericardium.

of the chest and neck. The right chest had collapsed at the site of the operation, almost closing in the large cavity. The patient died on August 18, 1925. Unfortunately, a necropsy was unobtainable.

CASE II—H. S., age 36, a tobacco merchant, came to my office in December, 1923, for antisyphilitic treatment, stating that he had contracted this disease about three years previously and for which he had received a course of antisyphilitic treatment elsewhere. His Wassermann reaction at this time was XXX. In other respects the physical examination was negative. The patient was placed on antisyphilitic treatment.

In September, 1924, the Wassermann reaction was negative and subsequent Wassermann tests up to the time of his death were all negative. The patient was not seen by me from December, 1924, until May 26, 1925, at which time he again appeared, complaining of pain across the right shoulder and extending to the right side of the neck, along the right sternomastoid muscle and along the attachment of the right trapezius to the base of the skull. This pain was more marked at night, while in a reclining position. There was also marked tenderness and slight swelling of the right sternoclavicular joint. His temperature at this time was 99.6 F., pulse 78, respiration 20. There were a few moist rales, at the base of the right lung posteriorly. The Wassermann reaction was still negative. The hemoglobin was 78 per cent. The red cells totaled 3,804,000; the white cells 14,600 of which 67 per cent were polymorphonuclears, 20 per cent lymphocyte; 13 per cent large monuclears, and 1 per cent myelocytes. The urine was of lemon color and alkaline in reaction; the specific gravity 1004; it contained a very faint trace of albumin, a few pus cells and an occasional red blood cell. The stools showed no occult blood. The sputum showed no acid-fast bacilli.

On May 27, a stereoscopic roentgenogram of the sternoclavicular joint showed a thinning of the cartilage of the right sternoclavicular joint and a very slight irregularity of the articular surface of the clavicle. The changes were thought to be due to a tubercular process. There was an irregular area of coarse mottling at the right base and a thickening of the interlobar septum between the lower and middle lobes, which were suspected to be inflammatory in origin (Figures V and VI).

The normal pulse, the absence of fever and night sweats, and the absence of tubercle bacilli in the sputum led me to exclude tuberculosis. Considering the facts that the pains were more marked at night than during the day, that disease of the sternoclavicular joint is more characteristic of syphilis, that there was a history of this infection, I placed the patient accordingly.

During a month's antisyphilitic treatment the condition became progressively worse; a nonproductive cough appeared and the patient lost about six pounds during the course of this illness. Although various tonics and nourishing foods were administered, he showed no improvement.

On August 26, 1925, three months after the first x-ray had been taken, another roentgenogram was taken which revealed the following points (Figures VII and VIII): The right sternoclavicular joint showed a rather marked improvement, there being no apparent deviation from the normal. On the other hand, the lesion in the right base had progressed rather markedly, with noticeable retraction of the entire right thorax. The diaphragm was elevated on the right with an adhesion to the pleura. The area of consolidation was much larger and extended from the level of the seventh rib posteriorly to the ninth interspace and from the midline well out toward the axilla. It was somewhat pyramidal in shape with the apex in the axilla.

Soon after this a right supraclavicular gland became palpable and he began to raise bloody sputum. At this time I suspected his malady to be a malignant growth, and on September 11, 1925, Dr. Harold Brunn excised one of the supraclavicular glands under local anesthesia. Microscopic examination by Dr. G. Y. Rusk showed a background of irregular sclerotic connective tissue scattered in which were small irregular spaces lined with cuboidal epithelium, usually one layer thick, but occasionally two or three cells thick. Mitoses were seen in such cells. Focal accumulations of pigment occurred, apparently from old hemorrhages. The diagnosis then made was adenocarcinoma with marked desmoplastic reaction (Figures IX and X).

At this time there developed dyspnea, paroxysmal cough and small pulmonary hemorrhages and the patient rapidly lost ground. He died suddenly on October 30, 1925, probably from a pulmonary hemorrhage due to an erosion of a large blood vessel. Unfortunately no postmortem examination was performed.

Pathological Anatomy—Pathologically, primary carcinoma of the lung may arise from (1) epithe-

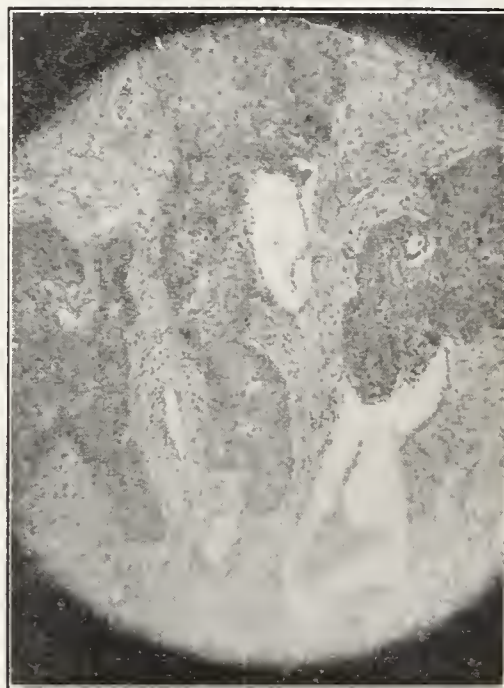


Figure IV—Pathological report of Dr. G. Y. Rusk. Epithelioma of the lung apparently arising from alveolar epithelium.



Figure V—May 27, 1925. This shows a thinning of the cartilage of the right sternoclavicular joint and a very slight irregularity of the articular surface of the clavicle.

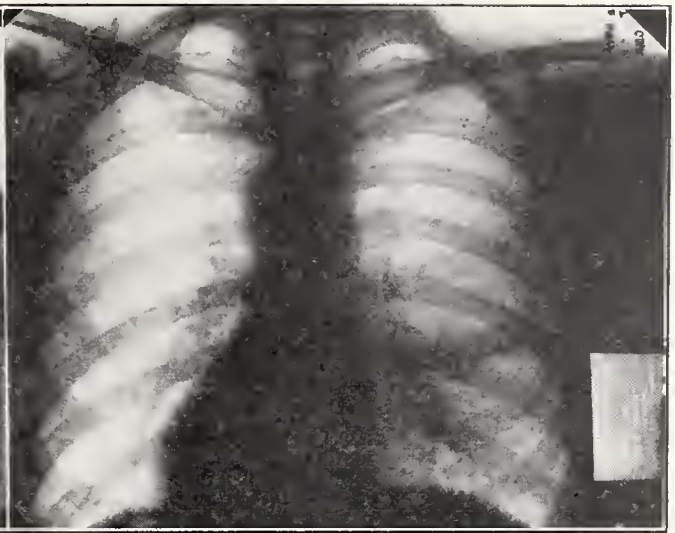


Figure VI—There is an irregular area of coarse mottling at the right base and a thickening of the interlobar septum between the lower and middle lobes, which were suspected to be of inflammatory origin.

lium lining of the bronchial mucosa, (2) mucous glands, or (3) epithelium lining the alveoli.

In the carcinoma arising from the bronchial lining we have an alveolar arrangement, the cells being squamous, cylindrical or nonciliated. Macroscopically, the bronchial epithelium, the pleura and the parenchyma have generally been found to be involved.

In tumors originating in mucous glands, the microscopic structure imitates that of the mucous glands. The cells occasionally secrete mucus and the greater part of the tumor is usually restricted to the submucosa producing early signs of bronchial stenosis.

Ewing divides tumors arising from epithelial lining of the alveoli into two classes: (a) diffuse and (b) multiple and nodular. One whole lobe or the whole lung is uniformly consolidated in the diffuse form. The lesion resembles organizing pneumonia or gray hepatization and croupous pneumonia. The pleura is generally involved and local and general metastases are frequent. In the multiple and nodular form the air vesicles are completely or partially filled with cuboidal, cylindrical or flat cells.

Symptoms—A careful survey of over 600 cases in the current literature, including all the cases reported by Adler (252) warrants the conclusion that the symptoms vary with the position and distribution of the malignant growth and the structure it involves.

The most prominent symptoms of lung cancer is cough which is absent only in a very small percentage of cases. The cough is generally mild in its incipient stage, characterized by its dry, irritating and fairly constant nature. The degree of all these factors is modified by the location of the tumor.

The existence of this cough and no otherwise abnormal findings in the bronchial tree should indicate the possibility of a pulmonary neoplasm. The literature records other forms of cough, some explosive and most annoying; others accompanied by little or no distress. The cough is one of the first symptoms to appear, but in some cases may be deferred until shortly before the patient's death. The moder-

ately loose cough of bronchitis is present in the majority of cases which later produces mucus and is often mixed with blood. In later stages of the disease there is the hoarseness and well-known laryngeal cough produced by a paralysis of the recurrent laryngeal nerve. This indicates that the tumor growth has invaded the recurrent laryngeal nerves or has caused a secondary inflammation involving the nerves.

Dyspnea also is a very important symptom, but does not necessarily occur in every case of malignancy. It may range from a mild form on exertion to an orthopnoeic type, following the slightest exertion. This threatened death by suffocation is most pathetic to witness, but fortunately the patient has periods of respite from these terrible attacks. Medical or surgical relief at this time is impossible. Another tragic complication is the involvement of the mediastinal glands which form large masses, pressing upon the trachea extrinsically and producing almost an entire closure of the trachea. This condition may be brought about intrinsically as well by the proliferation and the intrabronchial carcinoma. Effusion produced by any intrathoracic tumors may be directly responsible for the dyspnea rather than the tumors themselves.

Pain in the chest is very rare early in the disease, unless pleura or intercostal nerves are involved. In the pleura it may even set up an inflammation and produce a typical sharp pleural pain on inspiration or coughing. In the intercostal nerves the pain may be referred to any part of the nerve involved. Metastases may be responsible for pain in remote parts of the body, as illustrated in Case II. In this instance pain in the right sternoclavicular joint was the first symptom that brought the patient to the physician before any evidence of pulmonary carcinoma was established.

There is no characteristic sputa of malignancy of the lungs. Some writers have described currant, raspberry and prune jelly sputa, also a grass-green sputum, but bloody sputa which may occur early or late in the disease seem to be most reliable in corroboration of the diagnosis of malignancy of the



Figure VII—August 26, 1925. This shows a definitely outlined shadow of increased density extending from the base up to the central portion of the right lung. This is fairly sharply outlined below and fades out in the normal lung tissue above. It is somewhat pyramidal in shape with the apex in the axilla. The diaphragm on the right is elevated with slight amount of tenting. The entire right lung field is slightly increased in density.

lungs. In some patients the sputa may contain tubercle bacilli or other bacteria, and the diagnosis of pulmonary carcinoma is not made.

Loss of weight and cachexia, which always accompany malignancy, are extremely irregular in its early stages. In some patients loss of weight has been observed as one of the early symptoms long before anything at all pathological was discovered in the lungs. During the early stages of this disease there have been cases where the weight fluctuated, the initial loss being compensated for by a later gain. During the final stages, however, there is always a decided loss in weight and cachexia.

Fever, as a rule, follows a secondary infection or a flaring up of an old tubercular process, due to the lowered vitality of the lung tissue. The rise in temperature may also be induced by a pleural effusion which had become infected. Most writers agree that a slight increase in temperature may occur in uncomplicated cases of lung carcinoma.

Osteoarthropathy is a sign that generally follows diseases of the thoracic organs. This is claimed to be due to toxins which cause proliferation of the periosteum and the soft tissues or to poor aeration. It may also be due to a long-continued hyperemia, secondary to the intrathoracic pathology. In the soft tissues the terminal blood vessels of the fingers and toes do not allow the toxins to be carried off, which probably cause clubbed fingers and toes, a frequent accompaniment of intrathoracic disease. Some writers have reported changes in the anterior lobe of the pituitary body, but others have taken exception to this claim, as similar changes are found in the

same organ after other diseases of long standing and even after normal pregnancy.

Complications—Paralysis of the recurrent laryngeal nerves, pleural effusion, and even pericardial effusion, may be encountered early, but more often later in the disease. When the neoplasm involves a blood vessel it may produce a hemorrhage, and this may be the first sign of malignancy of the chest, and may be readily confused with tubercular hemorrhages. Misplacement of the heart to the right by left-sided tumors or effusions may also occur and metastasis involving frequently the heart muscle and adrenal glands are accepted complications.

Diagnosis—The most important factor in the diagnosis of primary carcinoma of the lung is that it should be made as early as possible. The physician must correlate the clinical history together with the physical examination of the patient. Laboratory tests and examination of the pleural effusion and sputum, together with roentgen ray and bronchoscopic examinations, all aid in reaching a diagnosis. The use of the bronchoscope requires special skill and experience. Early bronchial tumors have been diagnosed by the bronchoscope at an earlier stage than they are visible by the x-ray. This instrument aids in the determination of points of pressure, thereby enabling the surgeon to drain the cavities and immediately perform a biopsy. Dyspnea, paroxysmal cough, expectoration of bloody sputum and pain in the chest in an adult, may indicate a pulmonary malignant growth.

In interpreting x-ray findings we must consider both benign and malignant tumors. Benign tumors with a definite outline are rare, and on repeated examination show an extremely slow growth. Malignant tumors are from an x-ray classification, accord-



Figure VIII—August 26, 1925. The right sternoclavicular joint shows a marked improvement.

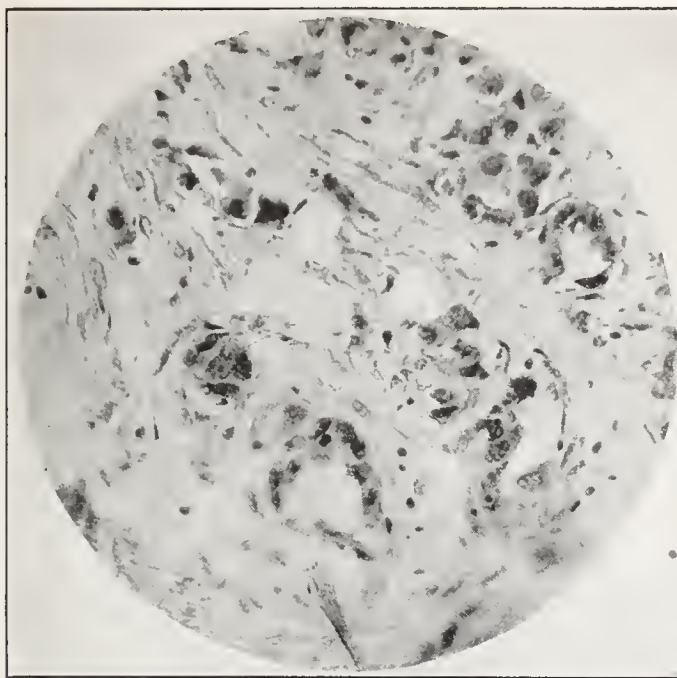


Figure IX—Pathological report of Dr. G. Y. Rusk. Section of excised supraclavicular gland, showing adenocarcinoma.

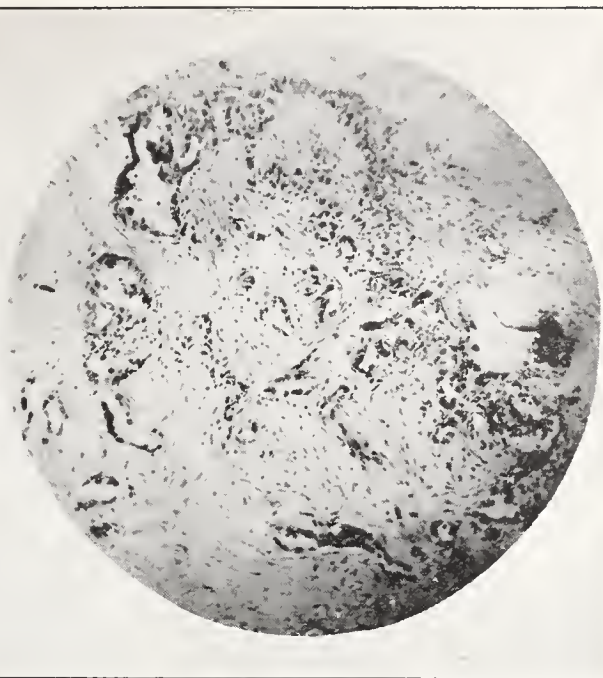


Figure X—Pathological report of Dr. G. Y. Rusk. Section of supraclavicular gland showing small irregular spaces scattered in a background of irregular sclerotic connective tissue.

ing to Brunn: (1) hilar, infiltrating and bronchial; (2) lobar, nodular, and miliary; and (3) mixed.

Treatment—Surgery, including cauterization, if necessary, offer the one hope for the relief of pain, prolongation of life, and perhaps a cure. But it must be done before metastases have occurred or complications set in. Roentgen ray and radium therapy have not proved at all successful.

REFERENCES CITED

- Adler, I.: Primary Malignant Growths of the Lungs and Bronchi, New York, Longman's, Green & Co., 1912.
- Braun, Ludwig: Med. Klin. 14:3-7, 37-39, 1918.
- Bridges, W. V., and Moser, R. A.: Primary Carcinoma of the Lung, Nebraska M. J. 7:377-381 (November) 1922.
- Briese: Zur Kenntniss des Primären Lungen Karzinoms mit statistischenangaben, Frankfurt Ztschr. f. Path. 23-48, 1920.
- Brunn: Primary Carcinoma of the Lung: Archives of Surgery, Vol. II, January, 1926.
- Bryan, L.: Roentgenological Study of Primary Carcinomata, J. Radiology 2:1, November, 1921.
- Cottin, E. et al.: Diagnosis of Primary Carcinoma of the Lung (twenty-nine cases), Ann. de. med. 8:435, 1920, Tr. A. M. A. 76:1047, 1921.
- Dever, F. J., and Royce, C. E.: Case of Primary Carcinoma of the Lung, Pennsylvania M. J. 25:545, 1922.
- Eloesser, Leo: Primary Tumors of the Lung (thirteen cases), Arch. Surg. 10:445-468 (January), 1925.
- Engelbach, W., and Schnoebalan, P. C.: Malignancy of the Lung, Am. J. Roentgenol. 2:193 (June), 1919.
- Ferguson, R.: Primary Carcinoma of Both Lungs, Southwestern Med. 7:247 (July), 1923.
- Fishberg, M., and Steinbach, M.: Diagnosis of Intrathoracic Neoplasms, M. Rec. 99:513 (March), 1921.
- Fried, B. M.: Primary Carcinoma of the Lungs, Arch. Int. Med. 35:1-41 (January), 1925.
- Friedman, G. A.: Report of Cases of Primary Carcinoma of the Lung, M. Rec. 100:980 (December), 1921.
- Gibson, H. T. C., and Findley, G. M.: Case of Primary Carcinoma of the Lung, Lancet 21 (January 6), 1923.
- Gordon, A. K.: Primary Diffuse Alveolar Carcinoma of Lung, Lancet 2:501 (September 4), 1920.
- Haynes, G. S., and Gaskell, G. F.: Case of Primary Carcinoma of the Lung, Brit. M. J. 1:222 (February 11), 1922.
- Leitz, T. F.: Report of Four Cases of Malignant Disease of the Lungs Presenting Gastric Symptoms at the Onset, Ann. Clin. Med. 2:170-173, 1923-1924.
- Lilenthal, Howard: Malignant Tumors of the Lung; Necessity for Early Operation, Arch. Surg. 8:308-316 (January), 1924.
- Lemann, I. I.: Carcinoma of the Lung, New Orleans M. & S. J. 67:786, 1914-1915.
- Locke, E. A.: Arch. Int. Med. 15:659-713 (May), 1915.
- Maclachlen, W. W. G.: Clinical Manifestations of Primary Carcinoma of the Lung, Atlantic M. J. 26:655 (July), 1923.
- Moise, I. S.: Primary Carcinoma of the Lungs, Arch. Int. Med. 28:733 (December), 1921.
- Packard, M.: Primary Malignant Neoplasms of the Lung and Pleura, New York State J. M. 18:472 (December), 1918.
- Risk, G. Y., and Randolph, V.: Anatomic Findings in Cases Simulating Pulmonary Tuberculosis, J. A. M. A. 82:442-447 (February 9), 1924.
- Wessler, H., and Jackes, L.: Clinical Roentgenology of Diseases of the Chest, Troy, N. Y., Southworth Co., 1923.

Spinal Anesthesia—Harry W. Martin and Rachel E. Arbutnot, Los Angeles (Journal A. M. A.), review more than 6000 cases of spinal anesthesia in the Los Angeles General Hospital, with especial consideration of genito-urinary operations. The fall in blood pressure is said to be greater than with any other anesthetic; hence, spinal anesthesia should not be used in patients with great circulatory hypotension or in those with myocardial degeneration or anemia. Its safety and desirability is increased by being supplemented with a light gas-oxygen anesthesia. Central acting drugs are valueless. Only drugs with a peripheral pressor action are of value. Blood pressure readings should be taken frequently. The morning cup of black coffee with sugar, or orange juice, is beneficial. Patients, as a rule, should have a preliminary opiate. Needles should be of small caliber and of nickel or nickeloid. Loss of spinal fluid should be guarded against as far as is practicable. If used in selected cases and carefully supervised the mortality with spinal anesthesia should be less than 1 in 1000. If it were even 1 in 100, it would still be a desirable anesthetic in selected cases because the postoperative mortality directly attributable to inhalation anesthesia in many prostates is considerably greater. Spinal anesthesia is most valuable and efficient for operations below the diaphragm when complete muscular relaxation is sought, but is a form of anesthesia to be used with discrimination and for special reasons.

PRENATAL CARE

By W. E. HUNTER *

(From the Intermountain Clinic)

DISCUSSION by R. S. Allison and LeGrand Wooley, Salt Lake City.

PRENATAL care, strictly speaking, means care of the child before birth, but is used here in the larger sense, which embraces both infant and maternal welfare. The health of the unborn child depends, for the most part, on the health of the prospective mother. By surrounding the mother with the proper mental and physical environment, and by instituting proper measures during pregnancy, we are able to increase the safeguards to her health and indirectly improve the health and decrease the hazards to the child. Experience has shown that healthy mothers are more likely to have healthy babies, and healthy babies more often grow to make better citizens. Good health, like education, is an asset to any individual or community both economically and socially. Childbearing carries a far greater morbidity and mortality than appears on the surface. It ranks second only to tuberculosis as the cause of death in women between the ages of 15 and 40. It is estimated that 65 per cent of the operations on women are the result of this so-called physiological function.

Only a small percentage of obstetrics in Utah is conducted by midwives, and most of their patients are in outlying districts where there are no doctors. In the larger centers I believe that most of the deliveries are conducted in hospitals or maternity homes. From what I gather, the prenatal care given by an occasional physician consists of taking the name and address of the patient and estimating the time of delivery. Any physician who assumes the responsibility of guiding a pregnant woman through her troubles should give her that care which the test of time has shown to be most helpful. Some of the insurance companies have recognized the advantage of such services, and issue maternity booklets to their policy holders. One company has extended its campaign into full-page magazine advertisements and sends visiting nurses to help in the care of the pregnant woman both before and after delivery. One line italicized in this pamphlet reads: "The first and most important thing to do, consult a doctor as soon as you know or think that you are pregnant." When these patients consult some doctors he too often takes the name and address, estimates the date of confinement, and rests on his oars until the time of delivery. He may ask for a specimen of urine, but its examination may depend more or less upon his appointments at the time of its arrival.

The value of prenatal care is so generally accepted that it needs no reiteration. The well-known radical reduction in the amount of eclampsia is only

one of the outstanding advantages produced by competent prenatal service. Many fetal and maternal deaths are often erroneously attributed to the accidents of labor, when the real cause may have been present even before pregnancy began. When a physician contracts to take care of a pregnant woman he should assume the whole responsibility and not leave anything for well-meaning, often inadequately educated friends and relatives to supply. Home remedies and harrowing tales only confuse the already bewildered prospective mother. It is the doctor's duty to explain matters so thoroughly that the prospective mother will subconsciously follow him instead of some self-appointed friendly advisor, and to encourage her to consult him about any matter not clear to her.

About half of the mortality of childbearing is due to sepsis, and the other half is due to hemorrhage and other complications. Sepsis is often the result of somebody's ignorance or carelessness. We all utilize the value of sterilization and cleanliness in surgical work, but do we always bear in mind that similar care is quite as important in maternity service? Accidents of hemorrhage, eclampsia, prematurity, postmaturity, and dystocia from disproportions between fetus and pelvis, and the failure to correct malpositions, may be much restricted by good obstetrics.

A careful history should be taken at the first prenatal interview. This should include the name, address and telephone number, the age, occupation, and a general idea of the home surroundings. A careful inquiry should be made into the history of past illnesses, particularly those diseases which affect the heart, lungs, and kidneys. The character and date of the last menstrual period, the onset of morning sickness, the beginning of the increased frequency of urination, and the appearance of breast changes should be jotted down in order to better estimate the date of confinement. Failure to accurately estimate the date of confinement has caused many a patient to worry and fret and the doctor considerable embarrassment when the baby did not arrive on schedule. It is a good plan always to explain that the date arrived at is only an estimated date. That only 5 per cent of patients are delivered on that date, so that 47½ per cent of babies come before and 47½ per cent occur afterward. Some doctors add an extra week to this date to prevent the patient from worrying about a prolonged pregnancy.

Next a history of previous pregnancies is important. This should include a careful history of the health during such pregnancies, the character of labor and the mode of delivery, the rapidity of convalescence and the ability of the patient to nurse the baby.

At the same time or at a subsequent interview the patient should be given a thorough examination. All patients should have it even if they appear perfectly healthy. This should include an examination of the heart, lungs, kidneys and other organs, and an examination of the blood, if necessary. The patient should be carefully gone over for foci of infection, with special attention to the teeth. Any needed dental work should be attended to.

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The examination should include a measurement of the pelvis both internally and externally. Only rarely do we find pelvic deformities that present a problem, but when we do find one its early solution may lead to saving a life and possibly two. Cysts, fibroids and other abnormalities may be detected and treated, thus insuring a safer labor.

It is a very good plan to record the weight of the patient at each visit. Pregnant women are very prone to put on weight, particularly in the latter half of pregnancy. There is a normal gain of fifteen to eighteen pounds, but beyond this I believe that restriction in diet is quite imperative, since fat people are liable to prolonged labor; they do not stand well the stress of labor, and the resistance to infection is lessened and operative delivery is more difficult. It is well to bear in mind that a rapid gain in weight is often a premonitory symptom of toxemia.

The diet plays a very important part in pregnancy. It should be plain, wholesome and sufficient to supply the needs of the developing child. In the early part of pregnancy a carbohydrate diet with an abundance of fluid will work wonders in the control of the early toxemias. In the latter half of pregnancy the restriction of diet will help considerably in preventing obesity. The character of the diet also plays an important part in the health of the patient. A coarse diet containing abundance of fruit and coarse vegetables may help overcome the tendency to constipation and at the same time it will supply a certain amount of fluid and vitamins needed for the proper growth of the child. It is a good plan to arrange the diet with sufficient calcium and phosphorus in the form of green vegetables and cheese to meet the requirement of the growing baby. It is said that a deficiency of calcium may be a cause of sterility and habitual abortion in the mother and tetany in the new-born.

It is essential to see that the maternal organs of elimination are working properly. The kidneys should secrete at least 1000 cc. of fluid daily in order to prevent the accumulation of poisonous bodies in the blood stream. Hygienic measures which will increase elimination through the skin and bowels should be encouraged. Exercise, particularly in the fresh air and sunlight, should be encouraged. Fresh air and sunlight have accompanied our process of evolution and form a vital part in the metabolism of the body and the function of the cell. It has been experimentally shown that animals deprived of sunlight thrive poorly, rarely become pregnant, and the offspring are under the standard. Any light exercise which does not fatigue is beneficial. Moderate dancing, swimming, tennis, or golfing in the early months should be encouraged. Automobile riding is not nearly so hazardous as most women suspect. As long as the patient does not become cramped, frightened or fatigued, there is little danger and considerable recreation to automobile riding.

The patient should be instructed to report every two or three weeks during the first half of pregnancy and every two weeks or oftener if necessary during the second half. She should be instructed how to measure the output of urine for twenty-four hours and bring to the office a four-ounce specimen

for examination. If the patient is instructed to wash the external genitalia before collecting the specimen a microscopic examination is not always necessary unless albumin is present or pyelitis suspected. Sugar is a common symptom. Many women have a lactosuria which is of no importance, but glycosuria, whether transient or permanent, has definite significance. At prenatal visits the blood pressure should be taken. A rising blood pressure often is the first and most important symptom of an approaching eclampsia. Convulsions do not often appear out of a clear sky. A rise of 30-40 mm. means that the patient must increase the elimination and refrain from work. If the blood pressure does not decline, the patient should be put to bed. If it begins to climb, the patient should be sent to a hospital for active treatment. If there is not a lowering of the blood pressure following rest and active elimination, labor should be induced before convulsions occur.

Vaginal discharges should be examined. If gonococci are present, treatment should be instituted. Neglected gonorrheal vaginitis may be hard to treat and may prove serious for both mother and infant. Common and annoying irritations and vaginal discharges due to other causes may disturb the patient's rest. Not infrequently the external parts are swollen and infected from scratching. Frequent cleansing of the vulva and carbolic lotions give relief.

CONCLUSION

Tradition and ignorance on the part of the patient and negligence on the part of the doctor or attendant are the outstanding reasons for many of the accidents of childbirth. The average patient does not know the value of good care before delivery nor the importance of cleanliness at the time of delivery unless taught it by the physician. But the physician does know its significance and too often neglects his duty. The difference in doctors is not so much what they know, but the care with which they use their knowledge.

In the larger medical centers prenatal care has greatly reduced the incident of convulsions, miscarriages, stillbirths, and injuries to mother and child. If the mother will take reasonable care of herself during pregnancy and lactation she will be able to lessen or remove many of the dangers of childbearing. A considerable percentage of the deaths that now occur in some sections are avoidable and preventable, and some of the operations on women could be eliminated.

DISCUSSION

R. S. ALLISON, M. D. (Boston Building, Salt Lake City, Utah)—The subject of prenatal care has been exceedingly well covered in this paper, and as far as I can discover there is not much to add.

As the writer has said, there is a great deal of carelessness shown in the care of pregnant women that the physician in charge is responsible for; and also there is a great deal of carelessness and indifference shown by the patients themselves. This latter is often the result of their previous experiences. What is the value to them of consulting a doctor if his examination and care is going to consist in "taking their name and address, etc." The need today includes educating physicians who have to do with the care of pregnant women so that they will realize the value of prenatal care and thoroughly convert them-

selves to the idea, then it will be done in a thorough and efficient manner. Also, if patients are enlightened on the importance of this attention they are not going to accept inattention, and will force the one who is accepting the responsibility of the safety of themselves and children to do his duty.

I hope many such articles may be written, read and taken to heart by physicians. It is too bad that they are not more generally read by the nonmedical public as well.

The situation then in regard to prenatal care resolves itself in not so much the details of the routine used in the care of these patients, but what is of far greater importance, the persistency and regularity with which observation is carried out.

LEGRAND WOOLEY, M. D. (The Salt Lake Clinic, Salt Lake City, Utah)—This timely article on prenatal care has pretty well covered the field. There are just two points which I would emphasize. The first is the advisability of doing careful routine pelvic measurements, combined with an estimation of the size of the child near term. Contracted pelvis is really not an uncommon condition even in private practice among white women. With clinic white patients, Williams (*American J. Obstet. and Gyn.*, June, 1926) finds 8.96 per cent of the usual types of contracted pelvis and 5.03 per cent of funnel pelvis. Polak says the incidence of the usual types is 10 or 11 per cent in New York. Though nearly 80 per cent of these women will deliver their babies spontaneously, the cause of labor requires the thoughtful attention of the accoucher. The more extreme degrees of contraction are best treated by Caesarean section, before or at the beginning of labor. But the very nicest obstetrical judgment is required to determine in the borderline cases whether to permit trial labor or to perform an elective Caesarean or other type of operative delivery. From the number of spontaneous labors we have seen subsequent to Caesarean, supposedly for this indication, I am convinced that many physicians are rather too liberal with the indications for Caesarean section. Williams makes the very interesting observation that the babies born to mothers with generally contracted pelvises are smaller than those born to mothers with funnel pelvis; who are in turn smaller than those from mothers with simple flat pelvises.

The management of pregnancy and labor complicated by heart disease, likewise, calls for the best obstetrical and clinical judgment. The mortality from cardiac causes is probably greater than from any other single complication of pregnancy, and no complication of pregnancy is more treacherous.

In a recent review of our cases we noted an incidence of heart disease in 3.65 per cent of 902 obstetric patients. This is exclusive of a much larger number who had only a systolic apical murmur. This is not the occasion to discuss the management of these patients further than to emphasize the necessity of making the proper diagnosis early in pregnancy and of keeping the patient under sufficiently close observation and regulation throughout pregnancy without unduly alarming her; and we might further remark that the condition of the heart muscle, rather than of the heart valve, is what determines the prognosis. The unusual significance which attaches to mitral stenosis is probably due to the extensive or progressive damage to the heart muscle by the same process that causes the stenosis.

Free Breath—This is exploited by O. W. Dean Co. Inc., Benton Harbor, Michigan, as "The World's Wonder Treatment for Asthma, Bronchitis, Hay Fever and Catarrh of the Mucous Membranes." The advertisements for this nostrum stress the fact that asthma sufferers can try "Free Breath without cost." Those who receive the sample are then importuned to order the "complete treatment," price \$18. Practically every "patent medicine" sold for the alleged cure of asthma contains either potassium iodide, Fowler's solution, or both, and then analyzed in the A. M. A. Chemical Laboratory the preparation was found to consist essentially of 7 gm. of potassium iodide and 0.05 gm. of arsenic trioxide in 100 cc. This is equivalent approximately to 21 grains of potassium iodide and 24 minims of solution of potassium arsenite per fluid-ounce.—*Journal A. M. A.*

ETIOLOGICAL FACTORS IN CHRONIC COUGH AN ANALYSIS OF ONE HUNDRED CASES—PRELIMINARY REPORT

By WILLIAM C. VOORSANGER AND FRED FIRESTONE *

MEDICAL literature of the past few years has abounded with reports of all sorts of pulmonary conditions mistaken for tuberculosis and suggested names for them. Voorsanger (1919) reported on some of these conditions and drew conclusions which after further study and experimentation we believe still stand. They were primarily to the effect that first we must recognize some nontuberculous pulmonary infections as diseases, and second that 10 to 16 per cent of diagnosed pulmonary tuberculosis is not tuberculosis.

This paper is a preliminary report of one hundred patients with chronic cough who were encountered in routine chest examinations at Mount Zion Hospital outpatient clinic and in private practice and who have had further and intensive study. All of them had a questionable symptom syndrome simulating the cardinal symptoms of tuberculosis with cough of a persistent nature, pain in the chest, hoarseness, loss of weight and strength, night sweats, history of hemoptysis varying from a mere blood-streaked sputum to actual massive hemorrhage, with general weakness and inability to carry on his or her occupation.

The present work was undertaken to ascertain whether by careful examination, physical x-ray, bacteriological and guinea-pig injection, a small per-

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centage of the numerous patients with undiagnosed cough and negative sputum and physical findings could not be demonstrated to be actually suffering from tuberculosis. We attempted to recover tubercle bacilli from the sputum by guinea-pig inoculation in those cases where sputum and culture were negative, but where symptoms and pulmonary findings as revealed by physical and x-ray examination simulate pulmonary tuberculosis, and are often justifiably so diagnosed.

What then are these conditions and, if properly classified, can they be relieved? Must the patient with so-called chronic bronchitis or chronic asthma continue to cough, wheeze and suffer because no proper effort has been made to diagnose his trouble?

Our study of one hundred cases of nontuberculous pulmonary conditions demonstrates that where *we have not been able to recover tubercle bacilli in the sputum* no tuberculous lesion in guinea-pigs inoculated with this sputum or the patient's pleural effusion occurred. Wankel of Germany in reporting 127 tests by guinea-pig inoculations with sputum as a method of distinguishing open and closed tuberculosis, concludes that tubercle bacilli cannot even be found by animal inoculation tests in the sputum of all tuberculosis patients who expectorate, but states that animal inoculation gives about 35 per cent more positive results than direct sputum examination.

A detailed analysis of the cases reported is given in the table below, which shows what we deem to be the underlying pathology causing cough in the patient investigated.

| | |
|---|----|
| Enlarged bronchial root glands..... | 8 |
| With peribronchial and hilum thickening..... | 23 |
| With thickening of pleura..... | 5 |
| With basal thickening and density..... | 4 |
| Coarse mottling and fibrosis..... | 10 |
| Healed pulmonary fibrosis with calcification..... | 8 |
| Emphysema bronchiectasis and asthma..... | 12 |
| Chronic bronchitis and pharyngitis..... | 4 |
| Sinusitis..... | 4 |
| Tonsillitis..... | 2 |
| Pleurisy with effusion..... | 3 |
| Mitral incompetency..... | 4 |
| Aortitis and aneurysm..... | 2 |
| Thyroid insufficiency..... | 1 |
| Hyperthyroid..... | 1 |
| Right pneumothorax..... | 1 |
| Lung abscess..... | 1 |
| Bronchopneumonia with abscess..... | 1 |
| Neurasthenia and anemias..... | 1 |

100

Our study shows that the largest group of these patients are those in whom x-ray examination of the chest was described as a pulmonary fibrosis with enlargement of the bronchial root glands with or without calcification, and an associated diffuse peribronchial thickening of the parenchyma of the hilum of the lungs. A careful investigation of the history generally elicited the presence or report of measles or whooping cough during infancy, followed by influenza during the epidemics of 1917-19 and 20, followed further by recurrent attacks of cold causing a persistent, generally scantily productive cough, indefinite pains in the chest and shoulders, fever, and especially weakness and run-down feeling. This group of patients was treated by autogenous vaccines made from three sterile consecutive sputums. Passive immunity with abolition of many of the

symptoms was produced and was followed by a marked improvement in the general well-being of the individual.

Bacteriological examination of the sputum in this group of patients with peribronchial involvement and clinical signs of asthma showed the prevailing organisms to be micrococcus catarrhalis, streptococcus nonhemolyticus, streptococcus hemolyticus alpha and beta, streptococcus viridans, and secondary invaders as gram positive diplococci and staphylococci. One patient supplied a pure culture of streptococcus viridans which caused death of the guinea-pig within twenty-four hours. The patient had signs of a severe upper respiratory infection, resembling the toxemia of influenza.

In many of the patients the pathological condition in the chest had advanced to a stage of bronchiectasis, with signs of wheezing and mucus-moist rales of bronchospasm. Results of treatment by autogenous vaccines in this influenzal group has been quite encouraging. McCrudden calls this condition "post influenzal chronic pneumonitis," describes the clinical, physical and x-ray findings, and finally concludes that "condition exists," but has no definite pathognomonic signs. Hurwitz in the study of bacterial asthma points out the significance of the influenzal group and their response to autogenous vaccines.

Landolphi in the study of 3580 patients in different epidemics describes 106 as having pleuropulmonary symptoms simulating tuberculosis, and calls the condition pseudo-tuberculosis in influenza.

In a study of patients at Saranac Lake between 1911 and 1922 Trudeau considers as well-grounded advice to "regard all persons with pulmonary hemorrhage as being tuberculous until they are proved otherwise."

Meader describes a condition called "nontuberculous peribronchitis" and feels that indirect suggestive evidence is afforded by radiology, which usually shows rather sharply outlined thickening of the bronchial markings, especially in the middle and lower lung fields, accompanied by varying degrees of parenchymatous densities, occasionally by bronchial dilatation and frequently associated with varying degrees of increased density and extent of root shadows. He feels this group is definitely related to influenza or active recurring acute upper respiratory infections and permit of a favorable prognosis when treated by vaccines, rest, or climate; he emphasizes the importance of recognizing these conditions.

A thorough study of the literature on "nontuberculous pulmonary fibrosis" has been made by Dorothy Atkinson, in which she describes the pathology, clinical and physical findings in the group of conditions following acute respiratory infection, and emphasizes the diagnostic importance of repeated negative sputum findings, the eliciting of a careful history dating back to a previous respiratory infection, the relatively mild character of the symptoms with a tendency to recurrent cough. The pulse and temperature keep below the level usually found in tuberculosis, and the amount of disability is not in proportion to the physical findings. The location of the lesion is important, for it is usually basal in the nontuberculous patients, in contrast to the "primary

focus of tuberculosis as described by Ghon which appears as a small calcified area usually well out in the lung fields and the secondarily involved lymph glands which may or may not be calcified. The characteristic "fuzzy" opacities and cavities of tuberculosis are absent.

L. H. Fales in discussing the relative value of the roentgen ray and physical signs in the diagnosis and treatment of tuberculosis concludes that the x-ray is the most important means of determining the existence of pathological conditions in the lung, for it will show lesions not demonstrated by physical signs and generally a greater area of involvement than elicited by physical examination. He states that peribronchial infiltration was generally accompanied by negative sputum while parenchymal infiltration was found in 68 per cent of the patients with a positive sputum.

Chevalier Jackson calls attention to the importance of foreign bodies present in the larger bronchi causing a bronchiectasis in children and adults with symptoms simulating tuberculosis, and points out the value of the x-ray and bronchoscope as means of isolating the foreign body. The condition he states causes asthmatic paroxysms which clear up following the removal of the foreign body and aspiration of the bronchiectatic cavity through the bronchoscope.

R. H. Meade reports a condition following the late effects of war gas simulating pulmonary tuberculosis, and in a study of 3000 ex-service men examined by the war risk insurance bureau (Kansas) found no evidence of gassing predisposing to tuberculosis or activating a tuberculous infection.

H. L. Hart and W. A. Gehler report three patients with conditions simulating pulmonary tuberculosis, with fever, cough, hemoptysis, rapid pulse, loss of weight and strength whom subsequent study revealed to be mitral stenosis and hyperthyroidism without bacteriological evidence of tuberculosis. He recommends a careful examination of the heart and metabolic rate determination as giving diagnostic evidence of value.

F. S. Bissel states that from a roentgenologic point of view the great differential task in chronic pulmonary disease is the differential diagnosis of tuberculosis "against the field." He believes the rather distinctive feature of the early foci of adults is their location in the area of Chauvet, besides the vertebral column and between the first and third dorsal spines. But almost as frequent and far more characteristic of early tubercle is a second situation in the second and third interspace near the periphery of the lung. A healed lesion in one lung with an acutely active process in the other lung suggests tuberculosis. Fibrosis and calcification do not of themselves justify a roentgenologic diagnosis of tuberculosis; on the other hand, caseation is always a sign of tuberculosis. Basal involvement without an earlier process at one or both apices is practically nonexistent as a roentgenologic finding of adult tuberculosis.

CONCLUSION

1. The present nomenclature for nontuberculous pulmonary conditions is inadequate.

2. Ten to sixteen per cent of diagnosed pulmonary tuberculosis is not tuberculosis.

3. No lesions of tuberculosis have been demonstrated on guinea-pigs from inoculations of tubercle bacilli-free sputum as determined by the smear method.

4. A distinctly infectious form of chronic pulmonary disease exists which is amenable to treatment and cure with an autogenous vaccine.

5. The prevailing organisms found in the above patients are micrococcus catarrhalis, streptococcus nonhemolyticus, streptococcus hemolyticus alpha and beta, streptococcus viridans and secondary invaders such as gram positive diplococci and staphylococci.

6. Influenza is the main etiological factor in the production of infectious asthma and bronchitis.

7. The x-ray is of inestimable value in differentiating tuberculosis from nontuberculous pulmonary conditions.

8. Thirty-two per cent of our patients are etiologically in an undiagnosed group and are classed generally under the heading of enlarged bronchial root glands and peribronchial thickening.

REFERENCES CITED

- Voorsanger, William C.: Pulmonary Conditions Wrongly Diagnosed as Tuberculosis, *Calif. State Journal Medicine* (July), 1919.
- Wankel: Inoculation of Guinea-Pigs with Sputum as a Means of Distinguishing between Open and Closed Cases of Tuberculosis, *Deutsche Med. Wochenschrift* 49:637, 1923.
- McCrudden, F. H.: Post Influenzal Chronic Pneumonitis, *Journal A. M. A.* 80:609, 1923.
- Hurwitz, S. H.: Post Influenzal Asthmatic Bronchitis, *Calif. & Western Medicine* (December), 1923.
- Landolphi: Pleuro Pulmonary Symptoms and Pseudo-Tuberculosis in Influenza, *Reforma Med.* 40:1099, 1924.
- Trudeau, F. H.: Significance of a Hemoptysis Onset in Tuberculosis, *Journal A. M. A.* 84:1800, 1925.
- Meador, C. N.: Nontuberculous Peribronchitis Simulating Occult Tuberculosis, *Journal A. M. A.* 87:3-139, 1926.
- Atkinson, Dorothy: The Nontuberculous Pulmonary Fibrosis, *Amer. Jour. of Medical Science* 693 (November), 1925.
- Fales, L. H.: The Relative Value of the Roentgen Ray and Physical Signs in the Diagnosis and Treatment of Pulmonary Tuberculosis, *Amer. Jour. of Med. Science*, 382 (September), 1926.
- Jackson, Chevalier: Chronic Nonspecific Infections of the Lung: Their Bronchoscopic and Eosophogial Phases, *Jour. A. M. A.* 87:10-729 (September 4), 1926.
- Meade, R. H.: The Late Effect of the War Gas on the Lungs, and its Relations to Pulmonary Tuberculosis, *Journ. Missouri Med. Ass'n* 19:385, 1922.
- Hart, H. I., and Gehler, W. A.: A Syndrome Simulating Pulmonary Tuberculosis, *Amer. Review Tuberculosis* 8: 53, 1923.
- Duncan, E. A.: The Common Sources of Error in Lung Examination, *Journal A. M. A.* 80:1213, 1923.
- Bissel, F. S.: The Differential Diagnosis of Certain Chronic Lung Lesions, *Amer. Journal Roentg and Radium Therapy* 13:126, 1925.

Obstetrics and Gynecology Chronic Endocervicitis—The etiology, symptomatology and secondary pelvic manifestations of chronic endocervicitis are discussed by C. Jeff Miller, New Orleans (*Journal A. M. A.*). He emphasizes the facts that the structural peculiarities of the cervix, its frequent exposure to trauma and infection, and its faculty of harboring bacteria over long periods of time, prove that local, superficial treatment is worse than useless, and that any methods which are to succeed must be directed toward the underlying pathologic change of the deeper cervical structures.

TREATMENT OF PRURITUS OF THE ANUS AND GENITALIA

By HARRY E. ALDERSON *

DISCUSSION by Kendal P. Frost, Los Angeles; Douglass W. Montgomery, San Francisco; Irwin C. Sutton, Hollywood; Charles E. Schoff, Sacramento; H. J. Templeton, Oakland; Frederick H. Rodenbaugh, San Francisco.

PRURITUS of these regions may occur in either place and persist there or the itching may gradually involve both anus and genitalia. This is true of both sexes. Sooner or later lesions attributable to scratching or rubbing appear and complicate the situation, rendering therapy more difficult. This pruritus in the great majority of cases is largely of reflex origin, but local conditions enter into the process to a very considerable extent. For example, some pathological process in the rectum, prostate, deep urethra, seminal vesicles, bladder, uterus or other pelvic structure may be the cause; but local inflammatory or neoplastic changes in the anal or genital skin and mucosa or increased secretion of the same will aggravate the pruritus. Even a very small amount of secretion finding its way along anal fissures and creases will bring on paroxysms of severe itching. There are cases occasionally where the condition is entirely local in origin.

This distressing condition may be made very much worse by ill-considered treatment occasionally leading to serious complications. The stimulating action of tarry and other substances in common use for pruritus on a mucocutaneous area, already rendered eczematous by constant rubbing, may produce carcinoma. An aggravated example of this occurrence recently has come to my notice. Thus a purely inflammatory dermatological process may in time become a surgical condition with serious possibilities.

The agonizing itching that characterizes this trouble calls so urgently for relief that the victim must have something at once to alleviate his suffering. Sometimes if this can be accomplished over a period of a few days the vicious circle is broken and the violent scratching is stopped long enough for repair of damaged tissues to be accomplished. Then rational therapy based on etiology can be instituted. Local treatment is beneficial, but unless underlying etiological factors are eliminated permanent relief is not obtained. We often have cases due to disease of the deep urethra, prostate seminal vesicles, or related structures. Recently one came to our notice where paroxysms of severe perineal itching accompanied and followed the sexual orgasm, and persisted for some time. It is a very common experience to find internal hemorrhoids, fissures or other rectal

pathology to be the main cause of the trouble. Likewise disease of the female pelvic organs with or without marked leukorrhea is often seen. If patients presenting any of these conditions have diabetes mellitus, naturally pruritus is more prone to develop and persist. There are cases too where the diet or gastrointestinal pathology (functional or organic) or intestinal parasites are the major factors. Excessive use of tobacco seems occasionally to be related to the trouble. Individuals with seborrheal skins also are more susceptible, and the local condition is more apt to become aggravated. In diabetics as well as in seborrheal patients, secondary infections become established more readily and local infection often has a great deal (but not everything) to do with the pruritus. We occasionally find a local streptococcus infection. Some have reported good results from the administration of streptococcus vaccine in these cases. They even recommend the treatment where no evidence of local infection is found. The finding of streptococci in the stools has been considered by some as sufficient reason for administering this vaccine therapy. It is difficult to understand how this treatment can be permanently successful where underlying pathology in some pelvic viscus is the primary reflex cause of the trouble. Naturally, the eliminating of a streptococcus or any other local infection should be one of the objects of treatment. Occasionally I have found an epidermophyton infection present, but never have I considered it to be the main cause. No doubt the good effects of the stronger mercurial, phenol or resorcin preparations used locally in such cases are due in part to their parasitocidal action. With causes acting reflexly, and underlying conditions having their unfavorable influences, it is evident that local treatment alone can never suffice. It goes without saying then that every effort should be made to find and eradicate these main factors. However, there are some local measures that will ameliorate the condition in most cases.

As spells of itching are often started by the presence of rectal, vaginal or skin secretion in the folds of the anal mucosa and skin, a rapidly drying non-irritating solvent is of use here. If this solvent contains an anipruritic agent it will give relief lasting for several hours. Carbontetrachloride C. P. containing $\frac{1}{2}$ per cent of phenol or 2 per cent camphor has been very useful for these purposes. It penetrates the ducts, follicles, crypts, and folds in the skin, dissolves secretions and excretions destroying bacteria and fungi. It dries quickly. It has one objection, namely, the vapor from it may cause vertigo. This can be guarded against, however, by applying the solution carefully and providing for plenty of ventilation in the room. Sometimes it produces considerable smarting, but this lasts only a few minutes. To some patients this smarting gives welcome relief. Usually this "dry cleaning process" will relieve one from pruritus for the whole night. Some skins may require more oil. Then lanolin may be dissolved in the carbontetrachloride. After this application, a powder like magnesium carbonate or talcum may be dusted on. Sometimes calomel powder locally will be useful. Occasionally an ointment containing 10 per cent of calomel will help. In any event the carbontetrachloride should be applied at

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least twice daily as a cleanser. The using of a wet cloth instead of toilet paper is helpful sometimes. Hot compresses give great relief. I believe that this is due in part at least to the resultant emptying and cleansing of the skin and mucous membrane, ducts, crypts, and follicles. There are many anti-pruritic ointments, the best ones containing phenol. Ultraviolet light applied systematically will toughen the skin and inhibit bacterial growth, in this manner helping the local condition. In my experience, however, no local measures give symptomatic relief in as large a number of cases as do applications of carbontetrachloride solutions. Surgical removal of the area involved, nerve section, nerve injection and other measures to produce complete local anesthesia are mentioned here, only to be condemned. The results are apt to be only temporary, as nerve regeneration takes place rapidly. To do full justice to our patients we should exert every effort to discover and eradicate the underlying causes and not be satisfied with local therapy alone.

DISCUSSION

KENDAL P. FROST, M. D. (831 Pacific Mutual Building, Los Angeles)—Doctor Alderson's paper brings up a condition which is always with us, and his suggestion of carbontetrachloride is a welcome addition to our therapeutic agents. I can do no more than to add my plea to Alderson's that the internal pathological condition which underlies practically every case of pruritus ani must be taken care of, else the pruritus is bound to recur no matter what local treatment is used. I do not consider pruritus ani a disease *per se*, but a sympathetic expression of pathological disturbances in the lower intestinal tract and other pelvic organs except where there happens to be a localized manifestation of some definite skin disease, in which case internal factors may have a determining effect on localization of the skin manifestation. We see eczema, particularly of the seborrheic type, psoriasis, epidermophyton infections, as well as many other skin conditions connected with this disorder. They all resist local measures unless the underlying, the pathological, disturbance is taken care of. Alderson's suggestion of carbontetrachloride as a cleansing agent is noteworthy. Most patients with pruritus ani are careless of their personal hygiene in this area, and proper cleansing is an important factor in their care.

D. W. MONTGOMERY, M. D. (323 Geary Street, San Francisco)—It is interesting to note the increasing attention dermatologists give to the troublesome symptom called pruritus ani. A few years ago one would not hear this affection mentioned in a meeting of this kind; now it is repeatedly touched upon both formally and casually. As Alderson says, pruritus ani may arise from many causes, but possibly the greatest proximate cause is congestion. Congestion in its turn may arise from many causes, of which that sluggish habit of the body called constipation is the most frequent. And one of the most frequent causes of this sluggish condition is the sedentary habit. The sedentary habit is a characteristic of the age in which we live. A few years ago the only industrial people who sat at their work were tailors and shoemakers; now there are thousands whose occupation entails sitting for many hours of each day as, for instance, stenographers, telephone operators, and those who ride much in an automobile. These seem to me to be the main reasons for the great increase in the number of people suffering from pruritus ani.

IRWIN C. SUTTON, M. D. (Taft Building), Hollywood, California)—Doctor Alderson's paper is timely, inasmuch as there is an increasing number of people with "desk jobs." To those who must sit on a hard seat, I insist that they provide themselves with a feather pillow, which helps to carry off the perspiration and prevents friction of the anal region. Tight and rasping underclothes must not be worn. Wiping and patting the anus with a pledget

of cotton dipped in a saturated solution of boric acid is a valuable substitute for the use of the bleached toilet papers now on the market. The remarks on the overuse of tars are pertinent, although I have had good results from liquor carbonis detergens diluted with an equal part of olive oil and used liberally on the anal region.

CHARLES E. SCHOFF, M. D. (Farmers and Mechanics' Bank Building, Sacramento)—Doctor Alderson has brought to our attention a very valuable therapeutic agent for the relief of the pruritis accompanying certain pathological conditions affecting the region of the anal orifice and genitalia.

Particular attention should be drawn to the fact that it is not offered as a curative measure, but as a means of relief to those suffering from this annoying affliction.

I have had the opportunity of using it in a limited number of patients, and it has been most gratifying, particularly when used in combination with either phenol or camphor. The ease and cleanliness of the application, its chemical, mechanical and therapeutic virtues commend carbontetrachloride C. P. to the physician for trial.

Underlying pathological lesions, of course, should be sought and eradicated if possible; dependence upon the drug as a specific agent to remove all causes will meet with disappointment.

H. J. TEMPLETON, M. D. (3115 Webster Street, Oakland, California)—Doctor Alderson's paper is a most excellent summary of modern knowledge of pruritus ani. Just as in any other symptom, the cause must be sought out and removed. This is of the greatest importance. However, in our enthusiasm in this quest we must not overlook that for which the patient consulted us, namely, relief. I have seen some very good results from the use of carbontetrachloride as recommended by Alderson. The remedy which has worked the best in my hands is the x-ray. This is practically always palliative and sometimes curative. I give one-half skin unit of unfiltered rays every two weeks, giving up to four or five such treatments if necessary. In the meanwhile the cause is determined and remedied if possible.

FREDERICK H. RODENBAUGH, M. D. (490 Post Street, San Francisco)—I am not qualified to discuss the dermatological aspect of Doctor Alderson's paper, but as a roentgenologist frequently treat this condition. The results, in my experience, have been most satisfactory.

I have found that the majority of patients are relieved by a dosage of from one-quarter to one-half filtered unit given at weekly intervals. It has not been my practice to continue treatment if there has been no response from the first three treatments. It is my impression that if a patient will react favorably to x-ray there will be some relief following a single treatment, and if this does not occur it will probably not respond to the x-ray. These patients should have local treatment if needed as no permanent relief can be expected until the local irritation is cured.

The dosage to secure results is safe and can be used repeatedly with no harmful effect.

DOCTOR ALDERSON (closing)—I wish to thank the discussants very much for their remarks. As most of these patients are seen by dermatologists, it is worth while bringing the subject up for discussion occasionally.

"Pabst Extract—The 'Best' Tonic" not Acceptable for N. N. R.—The Council on Pharmacy and Chemistry reports that Pabst Extract—The "Best" Tonic is claimed to be "pure extraction of malt, properly flavored and combined with hops and is preserved by no other means than pasteurization." The preparation is stated to contain alcohol, by volume, 3.70 per cent, and 1.45 gm. of hops are used for the preparation of 12 fluid ounces of "tonic." The Council found Pabst Extract—The "Best" Tonic unacceptable for New and Nonofficial Remedies because (1) the name does not indicate the potent constituents—malt and hops—of the mixture; (2) the claim "The 'Best' Tonic" is not warranted; (3) the therapeutic claims are unwarranted; and (4) it is sold to the public with claims that tend to its indiscriminate and ill-advised use.—Journal A. M. A.

You can't start a revolution in a land where everybody knows what a niblick is.

SOME THOUGHTS ON THE PSYCHOLOGY OF REFRACTION

By JOHN FASSETT EDWARDS *

THE psychologic aspect of refraction brings us into a very intimate relationship with our patient, since our findings profoundly affect his mental and physical being, prolonged through all his waking hours, constantly reminding him of us, favorably or otherwise. And it seems that there is little in ophthalmology which has a more penetrating attack upon the mind of our patient than whether or not we furnish him a satisfactory, agreeable pair of glasses.

Our patients appear before us in all sorts of mental conditions—anxious, morbid, worried, neurotic, exalted, hurried, overworked, tired, doubting, timid, confident and always expectant. We have to meet all of these situations without hesitancy, without failure of tact and always with skill. Surely this is no mean task; and the demand upon us is very great. I much doubt if many of us give this aspect of our daily medical work in optics any particular consideration; we accept it as a matter of course, routinely, consequently I fear that we often blunder in our handling of patients through lack of clear appreciation of the delicacy of our position.

Unless we shall have acquired, or are so fortunate as to have naturally an attitude of impressiveness of our ability to cope with the problems of our patients, we shall be greatly handicapped and limited in the effectiveness of our labors. Much of our work consists in being able to enforce obedience upon our patient when out of our presence, and unless we thoroughly impress such patient with the thought that he is expected to give us unquestioning belief and obedience, we shall surely fail to obtain his full co-operation. Irritable and morbid persons, in particular, will be deeply impressed with our personal radiation of atmosphere, and this may be favorable or the reverse. If unfavorable, the patient immediately builds up a defensive and antagonistic mental attitude which is difficult to change. This influence may reach into the subjective mind, and serve as an incentive for future acts. It is very unwise to ignore such a state, and we should be keenly alert to perceive its existence. If we fail to note this our results may be rendered negative, even erroneous, despite all our skill supplemented by modern aids to objective refraction. Patients who accept our optical prescription with a doubt of its value are demonstrations of such a mental condition. It has been my experience to find this attitude now and then among elderly people whose life experiences may have been of such nature as to curdle the milk of human kindness to some degree. The frequent and natural outcome of this

complex is that the unconvinced, doubting patient, is quite likely to pass out of our purview and to become even actively antagonistic to us. Certainly it is highly improbable that there will ever come a time—if I may assume the mantle of discredit which traditionally attaches to a prophet—when we shall be able to eliminate entirely the co-operation of the patient in fitting optical aids to human vision.

It is credent that much of the impressiveness of well-established and famous oculists is imparted by their fine offices, trim assistants, the air of complete capability, reinforced by the circumambient atmosphere of ability to correct perfectly their patients' ailments.

I recall the enthusiastic description of a man of large business affairs of what he had seen in a well-equipped office of a successful oculist, ending his remarks by saying that he had not known before that there were so many instruments made for the fitting of glasses. Manifestly, his belief in the ability of that ophthalmologist was in direct proportion to this extensive equipment. That all oculists do not believe that elaborate and perhaps intentionally showy equipment is indispensable is evidenced by the fact that in a recent issue of "The American Journal of Ophthalmology" the dean of American oculists, Edward Jackson, in discussing the necessity for ophthalmologists to equip themselves with the very expensive slit lamp corneal microscope, alleges that simple equipment is entirely adequate if well supplemented by skilled use, akin to the famous painter who mixed his pigments with brains.

The lack of a personality pleasing to patients is a liability calculated to jeopardize their confidence and co-operation. This is especially important for oculists, who often must require patients to remain under observation and treatment for months or years. And while the attitude of dominant positiveness may, like anything else, be overdone, I am constrained to believe that it produces less undesirable effects upon patients than manifest indecision in statements to them.

Obviously, we should formulate our diagnoses with all care and study, taking sufficient time in which to do this, employing every modern aid to accuracy of findings, and when our work shall have been completed it becomes incumbent upon us to furnish the patient a definite statement of conclusions. The old habit of some physicians of being mysterious—sometimes, alas, a cloak for ignorance—has largely fallen into disuse. It probably is ill-advised always to furnish *all* the information obtained, but our patient deserves a reasonable amount of information as to his condition. We often hear the remark, "Well, what did your doctor say is the matter with you?" "Why he didn't say anything," with an air of disappointment. There is no excuse for overlooking this if we will but assume the position of the patient. Furthermore, while our statements should be given with due weight and conviction, they also should be made with due regard to the possible consequences of inflicting a mental shock upon sensitive patients. It is usually better to disclose delicate information to relatives or friends who may be able to transmit all that is

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advisable, without unjustified concealment of conditions requiring attention.

Many times our best efforts to obtain accurate ocular measurements are nullified by lack of attention on the part of the patient. This is particularly so in the young. It requires much patience and tact to serve an active small boy, and particularly so when accompanied by the loving mother who has made such a complete job of spoiling him. At such times it will often be found expedient to send the parent out of the room, then in a darkened refraction room, with extraneous sights and sounds eliminated, the vacillating attention of the child may be secured by interesting him in the various small lights and mirrors in common use, and thereby promote his essential co-operation. And occasionally such a course of procedure may be advisable with adults, especially with those of low sensory threshold.

Anxiety or a strong element of subconscious doubt, even in intelligent persons, may induce a state of negation which operates greatly to impair and retard the best of efforts for the patient's benefit. An essential factor in handling this class of patients is a steadfast and insistent endeavor to remove the impelling cause of such doubts and fears. Often a lack of manual dexterity militates against a good impression, as does any undue roughness in handling the patient.

Apathy of greater or less degree is annoying at times. This may be due to mental preoccupation or impaired intelligence. This condition gives rise to erroneous replies to our questions, and may result in serious errors on our part. This remark particularly applies to refraction without a cycloplegic, due to the forward projection at such times of the objective mind in dominance of the subjective. Patients often apply for help with their minds surcharged with business worries or weighty home cares, which make them poor subjects for refraction unless their full co-operation and interest are secured. Fuchs (Textbook of Ophthalmology, 7th ed., p. 221) makes the following pertinent statement:

"Patients who are mentally depressed or mentally backward and patients who are nervous and supersensitive require special care in examination and special attention in treatment. The relief of their eye conditions may be an essential element in their improvement, and we must give our best efforts to secure good results in this regard. At the same time in our zeal to correct the eyes we must not forget the individual and his idiosyncrasies nor the fact that the correction of his other physical and nervous elements claims equal attention with his ocular treatment."

Some years ago a very active and busy merchant came hurriedly into my office for a refraction, and insisted on my completion of the work in twenty minutes. In reply to my vigorous protest against such a limited time, he maintained the impossibility of giving me more time and the great urgency of his ocular needs. By dint of careful chart work, retinoscopy, and ophthalmoscopy, the work was completed in the specified time, but not without a considerable doubt on my part of its value. My assurances as to his having to take the hurried result

were acceptable. In fact the fitting was entirely satisfactory and worn with comfort. His keen co-operation had made success possible.

Some of us do not personally deliver and adjust our optical fittings. In my opinion this does not operate to the mutual benefit of ophthalmologist and patient. Manufacturing opticians are not infallible, and lenses should undergo our own inspection and verification prior to delivery. Even a slight displacement of the axis of a cylindrical lens, especially easy in these days of round lenses, will often render glasses highly irritant and result in a dissatisfied patient, for which the oculist may be blamed. There is an ancient Spanish maxim which runs "The eye of the master fattens the horse." Moreover, I always demonstrate the value of my optical results at the same chart where the patient was fitted, thereby forestalling any desire to test his glasses in his own and often defective fashion. This takes time, to be sure, yet I maintain that it is time to which patients are entitled, and certainly it is a valuable part of the psychology of refraction, which should not be neglected.

It is a mistake to attempt refraction on patients muddled by alcohol or drugs.

A word about equipment. A part of my refraction outfit consists of a black background white letter standard chart, devised by James Thorington of Philadelphia which is lighted by a 200-watt daylight lamp contained in a large silvered reflector located about seven feet above the floor and the same distance toward the patient, who sits at twenty feet from the chart. This chart ensemble has proved delightfully satisfactory to me during the past year. Most eye charts are much overlighted, irritating the eyes of the patient, producing considerable retinal fatigue, and causing the maintenance of attention to be a difficult matter.

Concluding, I again quote from Fuchs' monumental work. In speaking of the correction of refractive errors, he says:

"In this regard we must remember that we are treating patients, not eyes, and must therefore take into consideration all the physical and mental factors which may affect his outlook upon life and determine his need for refractive or other correction."

The Persistent Positive Wassermann Reaction—"A Wassermann-fast reaction is a reaction that remains strongly positive or uninfluenced by long-continued treatment which is able in most cases to reverse a positive Wassermann," believes L. G. Beinhauer (American Journal of Syphilis, July, 1926, p. 455). "Statistics would lead us to believe that the criteria for a Wassermann-fast reaction may be stated as those cases which have remained persistently positive after the average of twenty to thirty or more arsphenamine injections of mercury, bismuth, or both. One is impressed with the prevalent but erroneous idea among physicians that syphilis is to be treated by courses or numbers of antisyphilitic injections. The trend of the day asks us to treat actively all positive serologic findings of syphilis. We are losing sight of the fact that syphilis, like other medical diseases, requires a personal individualization of the patient, and this is especially true of Wassermann-fast patients. When the triad of arsphenamine, mercury and iodides have failed to produce the desired result it is not unwise to try the modern additions such as bismuth, sodium thiosulphate, nonspecific protein therapy, and rest. There is no routine treatment for syphilis."

ON THE VALUE OF LIPIODOL AS AN AID IN NEUROLOGIC LOCALIZATION

A REPORT BASED ON SIX CASES

By JULIAN M. WOLFSOHN AND EDMUND J. MORRISSEY *

DISCUSSION by Walter F. Schaller and Leo Eloesser, San Francisco.

LIPIODOL, as a diagnostic agent, was presented to the medical profession by Sicard and his co-workers more than four years ago. During this period it has been proved of great value to the surgeon in the differential diagnosis of obscure lung conditions, to the urologist and gynecologist in the x-ray diagnosis of urogenital disturbances, and not least to the neurologist in the localization of spinal lesions.

Lipiodol is a heavy, oily, chemical compound, consisting of 0.54 grams iodine to each cc. poppy-seed oil. It is nontoxic, bland, and impermeable to the x-ray. It is extremely slowly absorbed, being demonstrated in situ by the x-ray two years after injection into a muscle.

Sicard found that it was nonirritating to mucous and serous surfaces and that it could be safely injected not only into the pleural and peritoneal cavities, but also into the subarachnoid space without producing any serious constitutional disturbances.

Since Sicard's discovery several other neurologists have reported very favorably on the use of lipiodol in localizing certain spinal cord lesions causing more or less complete subarachnoid block.

TECHNIQUE OF LIPIODOL INJECTIONS

The patient is placed in the lateral or sitting posture and prepared for cistern puncture. Two to three cc. spinal fluid are removed from the cisterna magna and immediately the same quantity of warmed lipiodol, free from air bubbles, is injected

into the cistern. By this maneuver the lepto meninges are kept distended, thus providing for the free descent of the lipiodol.

The patient is now placed in a sitting position with head slightly bent forward. The neck is gently percussed over the site of the injection, or the head is gently moved a few times forward, backward, and laterally. These procedures also aid the descent of the lipiodol.

Where there is no subarachnoid blockage, x-rays taken a few minutes after injection, with the patient in a sitting position, have shown the lipiodol collected in the lumbosacral cul-de-sac. (See Fig. 1.)

Where obstruction of the subarachnoid space exists from tumor, fracture, inflammation of the meninges, etc., the lipiodol is arrested at the exact position of the lesion in relation to the vertebra. As Sargent says, "from an operative standpoint, localization is more accurate than can be arrived at by neurological examination."

Not only can the exact level of the block be located, but in many cases the size and shape of the tumor can be delineated (Figs. VI and VII).

Sargent further found that he could often differentiate between extra and intradural tumors by means of lipiodol. He said that "extradural tumors occupy few segments of the cord, as a rule, and intradural many segments."

Sicard has discovered also that lipiodol is capable of "outlining a compression even at the beginning where chemical changes are at a minimum."

The following six cases of spinal cord lesion, upon which this paper is based, clearly show, both to the neurologist and to the surgeon, the value of lipiodol as an aid in spinal localization.

CASE I—Transverse Myelitis Epiconus—No Subarachnoid Block—L. H., single, American, clerk, 24 years old, entered San Francisco Hospital complaining of paralysis of left leg. Family history negative. Four years ago patient had right leg amputated in upper part of thigh for sarcoma. Microscopic diagnosis was periosteal sarcoma. At that time blood Wassermann was negative. Six months ago he had a chancre.

Present illness began three months before admission

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Edmund J. Morrissey (Medical Building, San Francisco). M. D. University of California, 1922. Practice limited to Neurological Surgery.



Fig. 1

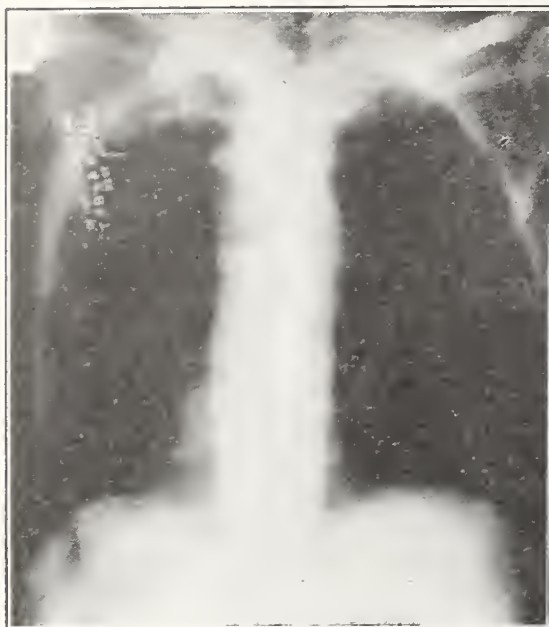


Fig. II

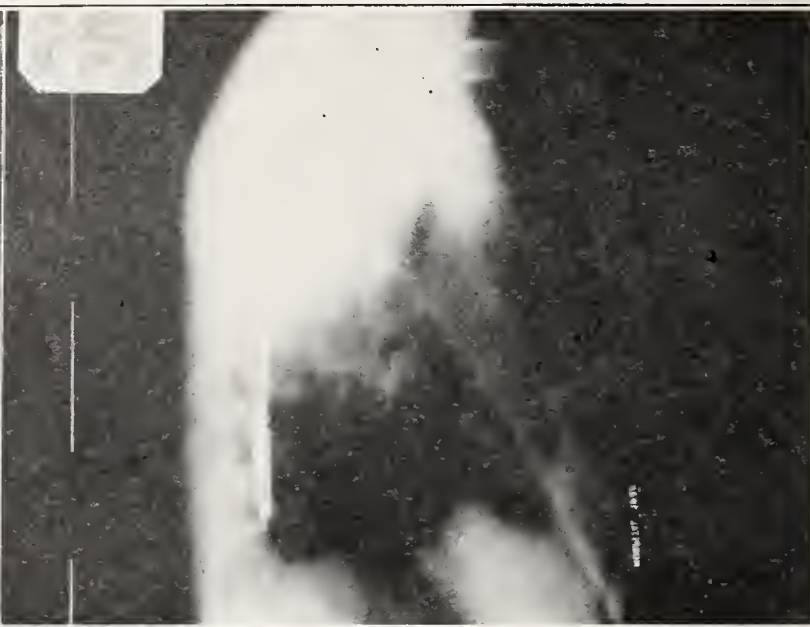


Fig. III

with difficulty in moving his toes (left). The weakness soon spread to ankle, leg, and thigh over a period of two and a half months. At present he is unable to move entire left leg and stump of right thigh. During this period he visited the clinic, where it was found that his blood and spinal fluid Wassermann was two plus, and he received antisyphilitic treatment without avail. There were no bladder or urinary disturbances.

Positive findings on examination were flaccid paralysis of left leg. Hypesthesia over left ankle and foot. Absent reflexes left leg. Spinal fluid and blood Wassermann two plus. Diagnosis of transverse myelitis (syphilitic) or metastasis to spine with pressure on spinal cord at level of first lumbar vertebra. X-rays of spine were negative. Lipiodol revealed no block, and after forty-three days the lipiodol was freely movable in the subarachnoid spaces evidenced by following x-ray reports.

January 26, 1926—All the lipiodol has gathered in a column extending from the top of the fifth lumbar vertebra to the top of the second segment of the sacrum.

March 11, 1926—In the supine position the lipiodol is now collected in a column from the eleventh dorsal to the second lumbar vertebra. A little of it is at the top of the sacrum. In the lateral recumbent position it is collected in a column from the eighth dorsal to the third lumbar vertebra.

CASE II—Compression Paraplegia—Tumor Metastasis Subarachnoid Block at D 10—L. J., married, Chinese, age 56 years, entered San Francisco Hospital August 6, 1925, complaining of mass on right side of neck and paralysis of both legs. Family, marital, and past history essentially negative.

Present illness began ten months ago, when he noticed a small mass on right side of neck which has been getting larger, until now it is the size of a small orange. One week ago he noticed weakness and loss of sensation in both legs, associated with incontinence of urine and feces.

Positive findings were, first, a mass of enlarged glands in right side of neck extending from mastoid almost to clavicle; second, flaccid paralysis of lower extremities

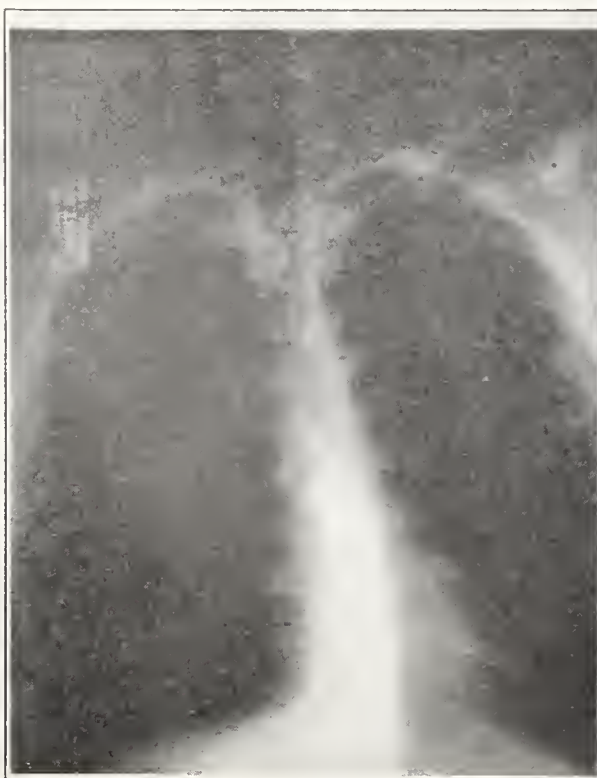


Fig. IV



Fig. V

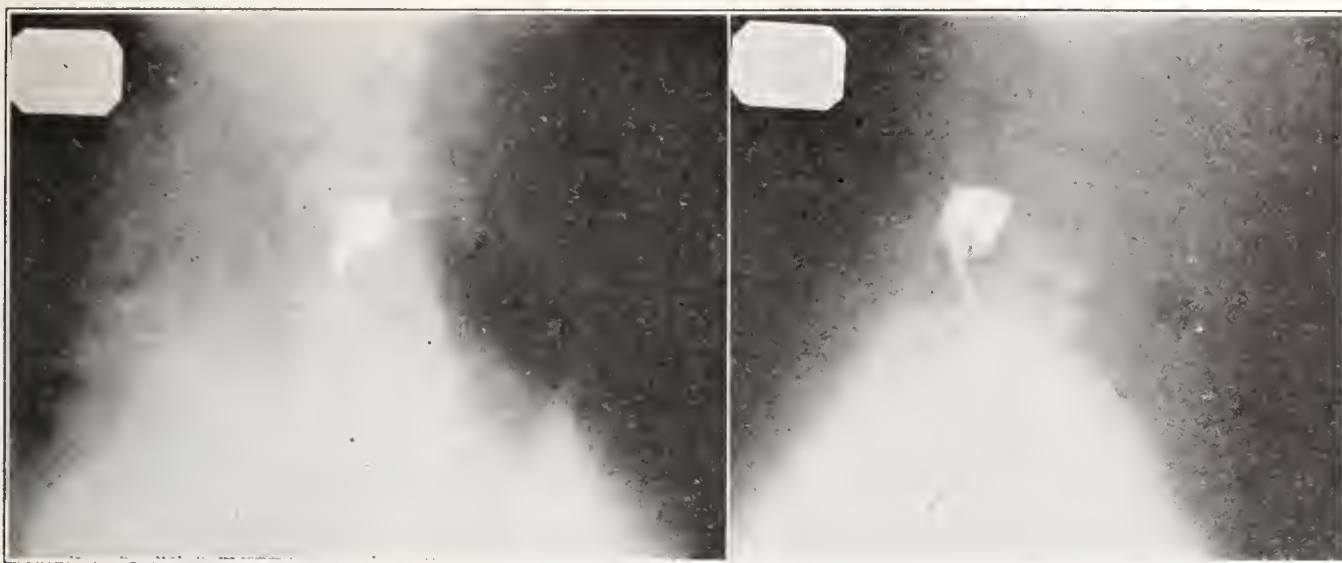


Fig. VI

Fig. VII

with hypesthesia from level of the ninth dorsal segment below together with loss of vibratory sensation.

Spinal fluid clear, colorless; 3-5 cells per cmm. Pandy and Nonne negative. Wassermann negative. Blood and urine essentially negative. X-rays of dorsal vertebra negative.

Cisternal puncture and injection of 2 cc. of lipiodol. X-ray shows complete obstruction at level of tenth dorsal vertebra. (See Figs. II and III.)

Section of gland excised from neck showed carcinoma.

CASE III—Spastic Paraplegia, Subarachnoid Block Level D 9—J. M., Italian laborer, single, 32 years old, entered the San Francisco Hospital on the Stanford service complaining of paresthesia over both feet and ankles, numbness (especially the left), and muscular weakness and spasticity of both legs. Family history is negative. Past history negative except for chancre at the age of 17.

Present illness began eight months ago with paresthesia of left leg and foot below the knee. Two months later he was aware of these same altered sensations in the right ankle and foot. Accompanying these changes in sensation in both legs was a muscular weakness and spasticity of both legs, more marked on right. He would stumble on walking, misjudge the height of stairs, etc. Weakness has progressed so that now he is only able to walk with the aid of crutches. For the last two months he has been constipated and has had difficulty in urination. Positive findings are spasticity and weakness of muscles of thighs and legs associated with increased reflexes and bilateral pathological reflexes, i. e., Babinski, Oppenheim, and Gordon, and ankle clonus both sides. There is hypesthesia from the level of the eighth dorsal segment down, slightly higher on left side.

Laboratory—Blood Wassermann plus; spinal fluid Wassermann negative. Cells 6. Neg. Pandy. Urine negative. X-ray of spine negative.

About 2.5 cc. of lipiodol injected through cistern puncture. X-ray shows block at the level of the ninth dorsal vertebra. (Figs. IV and V.)

CASE IV—Neurofibroma of Cauda Equina—F. B., single, age 27 years, entered San Francisco Hospital on the Stanford service December 28, 1925, complaining of ulcer on heel of left foot. The familial and past history are essentially negative. The present illness began fifteen years ago at the age of 12 years, when patient was struck in the lumbar region with a baseball following which he experienced rather sharp pains radiating down both legs. One year later he was placed on a Bradford frame with diagnosis of "Pott's disease," and was kept on frame for eight months. Upon being removed from frame patient noticed left leg was smaller than right. Loss of sensation began two years after the accident and progressed until about five years ago and has remained stationary since. He now enters for painless ulcer of heel received two months ago, when he rested foot on exhaust pipe of machine.

The positive findings are slight atrophy of the muscles of both legs—more marked on left—from the knees down. No paralysis nor spasticity. There is absent sensation to touch, pain and temperature over the left buttocks, posterior part of left thigh and outer surface of left leg and foot, areas supplied by fourth and fifth lumbar, 1-2-3 sacral segments. Rectal sphincter tone poor. Reflexes negative except for absent Achilles, both sides.

Roentgenograms of lumbar and sacral vertebrae. There is a cyst-like absorption of the posterior half of the bodies of the fourth and fifth lumbar, as if from pressure rather than from destructive new growth. The laminae are thin and hazy.

Laboratory tests of blood, spinal fluid, urine, negative. About 2.5 cc. of lipiodol injected in cisterna magna and x-rays taken later showed a block at the lower border of the third lumbar vertebra. (See Figs. VI and VII.)

Operation revealed a fibroma of the cauda equina at the level of the fourth and fifth lumbar vertebrae.

CASE V—Angioma of Cauda Equina—Bilateral Sciatica—G. S., single, Greek waiter, age 34, entered San Francisco Hospital on the Stanford service complaining of constipation and pains in left lower abdomen and buttocks. Familial and past history negative. Present illness began about three and a half years ago with dull aching pains in lumbar region occasionally radiating down both legs to ankles; this pain was worse at night. During the last year and a half he has been suffering from marked constipation.

The positive findings were: absent sensation to touch, pain and temperature over right buttocks and posterior part of thigh (areas of 1, 2, 3 sacral segments). No muscular weakness or reflex changes except absent Achilles on left, and rectal sphincter tone poor.

Roentgenograms of lumbar and sacral spines showed the sacrum has six segments. The lateral masses of the first segment have not united perfectly. There are hypertrophic fringes on some of the lumbar vertebrae. The lateral view of the lumbosacral articulation shows no evidence of spondylolisthesis. The top of the sacrum makes an angle of 50 degrees with the fifth lumbar. On account of the lumbar lordosis, this makes for a weakness at this joint. There is a slight list of the spine to the right. These findings suggest that there is a sacroiliac slip.

Laboratory examination of blood negative. Spinal fluid (obtained by cisternal punctures, spinal puncture unsuccessful) slightly yellowish tinge, globulin positive. Wassermann and Lange negative. Urine negative.

About 3.5 cc. of lipiodol were injected following cisternal puncture, and x-rays taken showed a block at the level of the upper margins of third lumbar vertebra. (See Figs. VIII and IX.) Operations revealed an angioma at the level of the third and fourth lumbar vertebrae.

CASE VI—Pott's Disease—Spastic Paraplegia—A. D.,

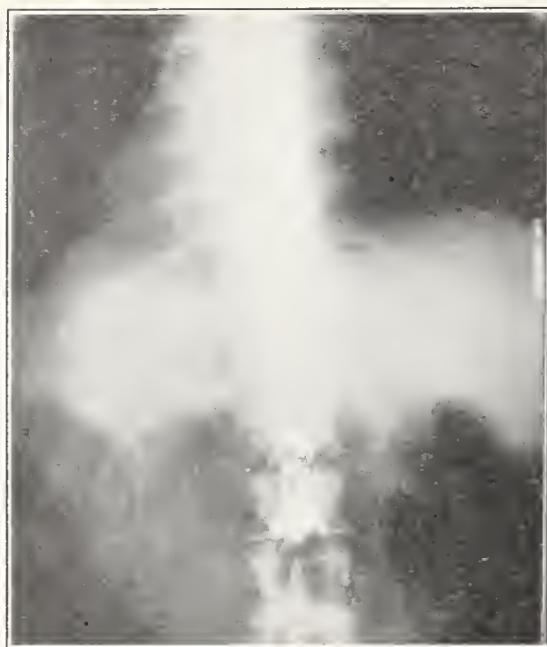


Fig. VIII

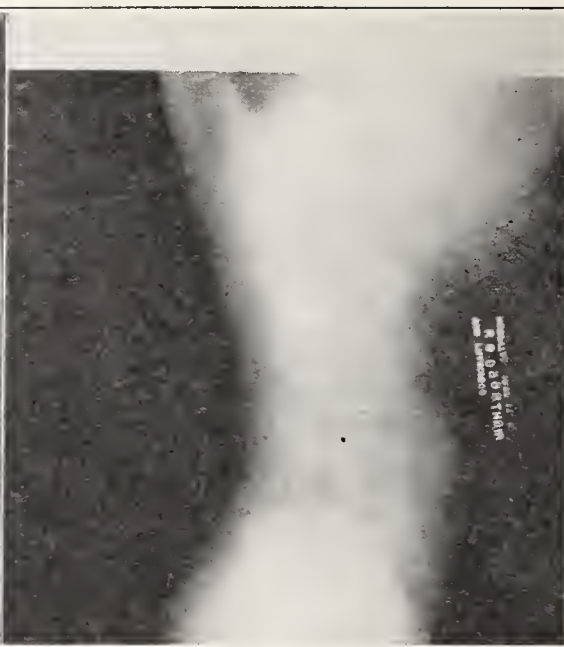


Fig. IX

10 years, female. Chief complaint was inability to walk since birth. Spinal deformity. Sore in both gluteal folds. Family history negative. Past history: normal birth. Has never tried to walk. Has had no diseases except convulsions at the age of 2, after eating grapes. Has always been healthy except for the conditions existing in the present illness, which dates from three days old, when the mother noticed a spot over the spine in the upper lumbar region. The patient never could use her legs properly. Did not try to walk or creep until about 4 years of age, and kyphosis was noticed at 2 years of age, when a cast was applied, and at $3\frac{1}{2}$ years Hibb's operation was done. At this time the patient showed all the signs of a definite spastic paraplegia. From 7 to 9 years the patient was at the Children's Hospital, where nerve resection of the obturators was performed to correct the contractures for the marked adductor spasm. The result was unsuccessful. At 9 years decubitus ulcers appeared in both gluteal regions. Also there was a fourth degree burn on the bottom of both feet from hot water bags.

The physical examination shows a very marked spastic paraplegia with atrophy and contracture below the tenth dorsal segments. Marked kyphosis and destruction of the spine centered around the first lumbar vertebra. Sensation to all modalities is diminished below the eleventh dorsal. The reflexes of upper extremities are normal except for the lower abdominals, which are absent. The patellas are active and equal. Achilles active on the right, barely obtainable on the left (marked contractures). Babinski active on the right and left. Decubitus ulcers

on the bottom of both feet and the gluteal folds. Temperature during the stay in the hospital ranged between 97-99. Pulse 80. Chest negative. Radiography normal. Von Pirquet positive.

Diagnosis—Pott's disease of the spine, level L (1) L (2) with compression myelitis. Cistern puncture. C. S. F. negative serology and cytology. One and one-half cc. lipiodol was injected, and x-rays on August 12, 1925, showed destructive processes involving 9-10-11-12 dorsal, 1-2-3 lumbar vertebra, fusion and obliteration in the intervertebral discs. Marked lateral curvature to the left. Most of the lipiodol lies in the region of 9-10-11 thoracic vertebra (Fig. X.)

CONCLUSIONS

1. Lipiodol should be used as an aid only in localizing or in confirming a spinal cord block.
2. Lipiodol does depict in some cases, not only the level of the lesion, but also its shape and contour.
3. The formation of adhesions following the use of lipiodol, as described by Sharp, was not found in our patients on whom operation was performed.
4. By the use of lipiodol the height of the lesion has been so localized as to permit of the smallest number of laminae to be removed surgically.
5. Lipiodol may be of great help where there are no localizing symptoms of very definite nature. Especially is this true of lesions of the epiconus and cauda equina.
6. Mistakes may easily be made in interpreting lipiodol x-rays if the position of the patient is not noted at the time of taking the picture.
7. We believe that when possible Jueckenstedt's test should be employed before the use of lipiodol. It was found impossible to use it in three of our cases on account of the position and nature of the lesion.

REFERENCES CITED

- Sicard and Forestier: *Rev. Neurol.*, 1921, VI, p. 1264; *Bull. Soc. Med. des Hop. de Paris*, 1922, No. 10, p. 463.
 Ayer, J. B.: *Arch. Neurol. and Psych.*, 1920, IV, p. 525.
 Guillian, Alajonanine, etc.: *Revue Neurol.* Tome, I, No. 5, May, 1924, p. 513.
 Sergeant, P.: *Proc. Royal Soc.*, 17 P. and 1-2, 1924, April 10, p. 59; *Brit. Med. Jour.*, II, August, 1923, p. 174.



Fig. X

Ironside and Shapland: *Brit. Med. Jour.*, I, 1924, January 26, p. 149.

Sicard, Paraf and Laplane: *Presse Medicale*, 1923, No. 85, October 25, p. 885.

Krafft, H. C.: *Schry. Med. Noch*, No. 35, August 28, 1924, p. 792.

DISCUSSION

WALTER F. SCHALLER, M.D. (909 Hyde Street, San Francisco)—In the history of medical progress each new diagnostic method is necessarily subject to technical repetition, critical analysis, and evaluation of end results. Such is the history of roentgenography of the spinal arachnoid space. At present lipiodol injections are on trial. The authors of the foregoing paper have brought forth evidence that this lipiodol method is a valuable adjunct to localization in cord compression. Professor Brouwer of the University of Amsterdam, while on a recent visit to San Francisco, expressed the fear that this simple procedure would replace the finer neurological clinical methods which might be neglected. However, experience is accumulating that when definite clinical signs are contradicted by a diffuse and indefinite lipiodol block the clinical signs should be favored. This has been the experience of Ayer and Mixer in the Massachusetts General Hospital, and also in a recent case coming under my own observation. This case showed no obstruction at operation, although there was a diffuse lipiodol accumulation in the dorsal region. Misinterpretation of lipiodol readings may be due to deformities, congenital defect in the canal, membranous adhesions, or even epidural leakage. The presence of a definite cap with complete block is, of course, a reliable guide. The oil is somewhat irritating to the spinal membranes. Maclaire reports a case of spinal trauma with paraplegia in which, five months following lipiodol injection, dense recent adhesions formed with cystic inclusions in the arachnoid. This reporter felt that the injection had materially aggravated the pre-existing paralysis. A patient recently observed was injected with a somewhat larger amount of lipiodol than is customary. The oil descended to the dural sac without block, distending the sacral root sheaths, which were outlined by the x-rays. Sacral pain not complained of before the injection was thought to be due to root irritation and sheath pressure.

LEO ELOESSER, M. D. (490 Post Street, San Francisco)—Both the laminectomies reported by Wolfsohn and Morrissey were uncommonly bloody. Both of the exposed tumors were so rich in blood vessels, and had grown through the roots so intimately, that it was not possible to remove either of them. The roots and their membranes were red and intensely hyperemic when they were exposed—the first eighteen—and the second three days after the lipiodol injection. Whether or not the cord and the roots are harmed by this inflammatory reaction to the lipiodol injection, I should be unwilling to say. However, these laminectomies were sufficient to make me believe that lipiodol is not innocuous to the contents of this dural sac. One must decide in each case whether or not to use it, weighing the disadvantages of the inflammation it may and does cause against the advantages of a more accurate localization. Until it has been further proven harmless, I think it should not be used regularly in every suspected spinal canal block.

Hoyt's Protein Cereal Omitted from N. N. R.—Hoyt's Protein Cereal is a preparation of gluten in the form of flakes containing protein, 78 per cent; fat, 1 per cent, and starch, 4 per cent, which is manufactured by the Pure Gluten Food Co. (New and Nonofficial Remedies, 1926). The Council on Pharmacy and Chemistry reports that objection was made to the claims made for this product in 1925. In June, 1926, the Council received a circular containing misleading and unwarranted claims essentially similar to those to which objection had been made previously; therefore, the Council rescinded its acceptance of Hoyt's Protein Cereal and directed its omission from New and Nonofficial Remedies.—*Journal A. M. A.*

There may be wisdom in a multitude of counselors, but it is only in one or two of them.—Huxley.

MOVABLE KIDNEY WITH KINK OR ANGULATION VERSUS URETERAL STRICTURE†

By FRANK HINMAN, MORRELL VECKI, AND CLARK M. JOHNSON *

(From the Department of Urology, University of California Medical School)

THERE is a group of conditions of and about the kidney and ureter the diagnosis and treatment of which at present is very much mismanaged. Renal movability with kink and ureteral stricture are two of these conditions most commonly reported, but a great difference of opinion exists in the interpretation of the findings indicating each as well as in the best method of examination to obtain these findings.

The clinical effect of movability with kink or of stricture is urinary obstruction with or without pain, or pain without evidence of obstruction. Either of these clinical pictures is commonly complicated by infection. The diagnostic difficulties are increased by the fact that there are cases with good urological evidence of movability with kink without either obstruction or pain and of stricture unaccompanied by pain or obstruction. Infection may be associated or alone present in either of these symptomless groups. In other words, the diagnosis of movability or of stricture as pathological entities is not sufficiently standardized to give uniform findings.

Besides the absence of a satisfactory standard method of examination these cases present great difficulty of differential diagnosis which is of two kinds. First, the differentiation of renal or ureteral conditions from intra-abdominal abnormalities such as appendicitis, cholecystitis, salpingitis, etc., and, second, the differentiation of the different renal or ureteral possibilities; movability and stricture are by no means the only conditions causing urinary obstruction or renal and ureteral pain without evidence of obstruction.

The supravescical causes of obstruction for clinical purposes may be grouped as follows: first, stone; second, renal movability with ureteral fixation by bands, adhesions, aberrant blood vessels, etc.; third, ureteral or periureteral abnormalities, stricture, ureteritis and periureteritis, constriction from out-

† Read before the Urological Section of the California Medical Association, April 26, 1926.

* Author's abstract. Reprint of complete paper, published elsewhere, will be sent on request.

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Morrell Vecki (200 Irving Street, San Francisco)—M. D. University of California, 1924; A. B. University of California, 1920; M. A. University of California, 1921. Graduate study: Intern San Francisco Hospital, 1924-25; assistant in urology (U. C. Med. School), 1925-27, inclusive. Present hospital connections: Assistant in urology, U. of C.; assistant visiting urologist, San Francisco Hospital, service of Dr. Frank Hinman. Publications: "Pyelorenous Back Flow" (Hinman and Vecki), *J. Urol.*, March, 1926.

Clark M. Johnson (1304 Willard Street, San Francisco)—M. D. University of California, 1924; A. B. University of California, 1920. Graduate study: Intern U. C. Hospital, 1924-25; assistant in urology, 1925-27. Present hospital connections: Assistant in urology, U. of C.; assistant visiting urologist San Francisco Hospital. Practice limited to Urology.

I. Presumptive Evidence

| | |
|--------------------|-------------------------|
| 1 History | 3 External Genitalia |
| | 4 Urine |
| | 5 Rectal |
| 2 General Physical | or |
| | Vaginal |
| | 6 Kidney Palpation |
| | 7 Plain Roentgenography |
| | 8 Total Renal Function |

II. Positive Findings

| |
|----------------------------|
| 1 Urethral Exploration |
| 2 Endoscopy Urethroscopy |
| 3 Cystoscopy |
| 4 Cystography |
| 5 Ureteral Catheterization |
| 6 Relative Function |
| 7 Pyelography |
| 8 Waxed-tip Catheter |

side pressure of neighboring abnormalities; fourth, ureterovesical abnormalities; and, fifth, anomalies of structure, form, termination, etc. In an analysis of 105 personal cases of hydronephrosis ninety had urological evidence of nephroptosis. In the majority of these cases the point of obstruction was apparently at the ureteropelvic juncture and the ptosis of the kidney because of fixation of the ureter at this point brought about obstruction. No doubt in a number of these cases constriction at the uteropelvic juncture was associated with an inflammatory condition at this point and might be considered by many as stricture. In only fifteen cases was stricture of the ureter other than at the uteropelvic juncture diagnosed and in several of these the point of obstruction was at the uterovesical juncture. In none of these fifteen cases was the hydronephrosis of size. During the same period that these cases of hydronephrosis due to movability and kink or to stricture were seen, there were seen 159 cases of hydronephrosis due to other types of supravescical obstruction.

The conditions causing pain without evidence of obstruction may be any one of the above five groups, but there is also an important additional group, six, the perirenal or capsular abnormalities, which are a frequent cause of renal pain. The pain in these obscure cases may be capsular, pelvic or ureteral. The innervation of the capsule, renal pelvis and upper ureter is wholly sympathetic, whereas that of the lower ureter is parasympathetic and this anatomical fact should be utilized not only in differen-

tial diagnosis, but application of treatment. In the recognition of the cause of obscure renal and ureteral pain all possibilities of necessity must be kept in mind. Of these the periodic emptying of uric acid crystals has been emphasized by Beer as a frequent cause of renal and ureteral pain. All urologists recognize that the x-ray fails to show small ureteral stones in 15 to 20 per cent of cases, and these two facts show the importance of the routine use of waxed bulb catheters for diagnostic purposes.

Great care and judgment is required in the recognition of movability with ureteral fixation as a cause of abdominal pain. This particular group has occasioned most of the mistakes in the past in the way of treatment, many gall bladders and appendices having been removed without giving relief and many nephropexies having been performed in vain. The capsular conditions causing renal pain are often quite difficult to recognize, and yet there is no doubt that there are certain perirenal and capsular abnormalities which cause renal colic. In the majority of these cases the pain is localized and tenderness in the kidney region is elicited on palpation. These cases are completely relieved by simple decapsulation. Borasch in Germany has reported six cases of this type of renal colic. In our series of 308 cases there were 166 cases of nephralgia due to nephroptosis with angulation without evidence of hydronephrosis and thirty-seven cases of ureteral stricture without evidence of obstruction. In a number of these cases of stricture relief by ureteral dilatation was absent

altogether or only temporary so that the diagnosis had to be revised later.

The Examination—It is particularly necessary in the dual differentiation of these obscure cases that a complete routine study be made. The following chart outlines such a procedure divided on the lines of search for presumptive evidence preliminary to instrumental study.

The most important of the steps of examination for presumptive evidence so far as this particular group of cases is concerned are the history, the examination of the urine and kidney palpation. Detailed study of the pain, its character, location, radiation, duration, etc., is of the utmost importance. Disturbance of urination rarely is a factor, but often complicates the picture because of the secondary incidence of infection. An examination of the urine is of importance because of the relation of pus, blood and the urinary reaction with uric acid crystals as a factor in the causation of pain. Kidney palpation is important in those cases where tenderness is elicited or pain reproduced by bimanual palpation and in the determination of the degree of renal movability and kidney size. Of the steps for obtaining positive findings the use of the waxed bulb and the ureteropyelogram are the two most important for differential diagnosis. For the purpose of diagnosis the waxed bulb cannot safely be replaced by the type of woven bulbs now on the market for the dilatation of ureters. In the diagnosis and recognition of obscure stones or accumulation of crystals in which negative x-rays have been obtained the waxed bulb by the evidence of scratches is a positive means of diagnosis. A difference of opinion exists as to the value of a hang in the diagnosis of stricture, many regarding such a hang as evidence of stricture, whereas others believe that temporary spasm or one of the points of the natural ureteral narrowing would give such a hang. Obstruction to the insertion of a catheter cannot likewise always be interpreted as due to ureteral obstruction or constriction, as the catheter tip may so engage on the mucous membrane because of redundancy or fold as to be obstructed.

The findings on ureteropyelography are also subject to marked differences of interpretation as well as method of use. The picture may be taken in the Trendelenburg, prone or the upright position and with the catheter end in the kidney pelvis or at some portion of the ureter. In many cases the ureteropyelogram obtained differs according to the position of the patient and of the catheter tip. A safe routine as regarded by the majority is to take a pyelogram with the catheter tip in the pelvis and the patient in the prone position followed immediately by the ureteropyelogram after the catheter tip has been withdrawn into the lower third of the ureter and the patient placed in the upright position. These two pictures would show changes in ureteral or pelvic outline as well as changes in position of the pelvis and ureter in relation to each other that would occur between the prone and upright stance. In either of these technical procedures the waxed bulb or ureteropyelography, the reproduction or nonreproduction of the pain of which the patient complains is of considerable diagnostic significance,

although in obtaining this information care is required not to too forcibly fill the ureter or pelvis as to set up a too severe reaction. It is frequently found that the patient's opinion as to the character of pain caused by the waxed bulb exploration or the ureteropyelography is unreliable, although usually in these cases the complaint itself is too frequently vague and it is in these instances of indefinite evidence both urologically and on the statement of the patient that care in coming to any definite conclusion must be exercised.

The outstanding conclusion, from an analysis of these 264 obstructive and 308 painful conditions without obstruction, is the adoption of a universal routine method of examination which will lead to a more uniform manner of interpretation of the findings. It is only on the basis of exact diagnosis that improvement in the results of treatment can be expected.

CEREBROSPINAL RHINORRHEA

REPORT OF A CASE

By BERTRAND S. FROHMAN, M. D., *San Francisco*

DISCUSSION by Edward C. Fabre-Rajotte, *San Francisco*; George Piness, *Los Angeles*; Oscar Tobriner, *San Francisco*; Merwyn H. Hirschfeld, *San Francisco*.

LOSS of spinal fluid through the nose is sufficiently interesting and rare to warrant an occasional review of the subject.

Halliburton,¹ St. Clare Thomson,² and Loftus,³ have contributed in the past practically all that we know today of cerebrospinal rhinorrhea. In the first published case, King⁴ noted the escape of a clear fluid from the nose. Tillaux⁵ in 1877 reported the first case in which the fluid was examined. Up to 1922 there were reported: undoubted cases, 23; probable cases, 14; possible cases, 8. To these may be added two more: Schwartz⁶ and Olmos.⁷

ETIOLOGY

Trauma, definitely established in St. Clare Thomson's monograph reviewing twenty-one cases. Theories: brain tumor, syphilis, congenital defect (Loftus), hydrocephalus internus. **Incidence:** Sex, alike; age, 18th to 65th year. **Pathology:** Only four cases with necropsy. No localized primary pathology found. It is not definitely established by what route the fluid passes into the nose. The theory of hydrocephalus internus was not supported by post-mortem findings. **Symptoms:** escape of a clear fluid from the nose, intermittent, but usually continuous. Relation of position of head to flow. When the head is bent forward the fluid escapes. When sitting upright or lying down the fluid escapes into the throat. Flow increased by strain (laugh, sneeze, or cough), exercise or emotional changes. Unilateral, majority have left-sided flow. Onset gradual, a few drops escaping at first. Amount, from a few drops to an average of one litre in twenty-four hours. Character of fluid clear, limpid, odorless, tasteless, or slightly salty. Does not stiffen or discolor handkerchief after drying. Headache, mild to severe. Increased when flow is diminished or during intermission of flow. Headaches are relieved when the fluid escape is free.

Eye symptoms, characteristic of increased intracranial pressure: present in twenty-three cases, more marked on side of flow. One case reported by Meyer,⁸ the patient was blind until the flow started. Optic neuritis (twenty cases) visual field contractions. Alteration in color tests, enlarged blind spot, swollen discs, retinal hemorrhage, optic neuritis—to atrophy to blindness (five cases). Cerebral symptoms: Reported in majority of cases, but not characteristic of any one disease. Head pains, epileptic attacks, generalized convulsions, unconsciousness, vomiting (never projectile), lethargy, delirium, vertigo, facial paralysis, hemiplegia with optic nerve involvement, psychic and emotional changes.

Diagnosis—Made upon: Dripping of a perfectly transparent fluid from the nose. Reaction, faintly alkaline. Odorless, tasteless or slightly salty. Specific gravity low—1.005-1.010. Not viscid. No precipitate on addition of acetic acid. On boiling, not more than a trace of serum albumin and serum globulin is present. Reduced by Fehling's (if fresh specimen, as glucose ferments and is destroyed quickly). Does not cause handkerchief changes, already referred to (Stressed by Thomson as a very important diagnostic point, due to the absence of mucin). Unilateral flow. Central nervous system symptoms. Relation of position of head to flow. Normal cell count.

Differential Diagnosis—From: nasal hydrorrhea; dropsy of antra or frontal sinus; water inspired and retained in sinuses; vasomotor neuritis and rupture of nasal lymph tubes. Examination of the fluid establishes this differential diagnosis (Loftus).

Prognosis—Unfavorable, due to the danger of meningoencephalitis; duration in cases reported, from fifty-nine days to twenty-nine years.

Treatment—The condition is aggravated by attempting to check the flow. Lumbar puncture, drugs and intranasal manipulations are of no value. The latter is definitely contraindicated.

CASE REPORT

A single, American woman, age 25, was first seen October 29, 1925, complaining of headache, uncontrollable crying and nervous attacks. In the absence of positive physical findings, the diagnosis was hysteria. This was the second of a similar attack, the first occurring in August, 1925, while a student at the University of California. At that time she had severe head pains, mild convulsive seizures, and could not control her emotions. Sedative therapy and bed rest was ordered.

She reported for more thorough investigation November 11, 1925. Present complaint: Very nervous. Depressed. Has had suicidal thoughts. Emotionally very unstable. Sense of smell diminished. Constant headache, referred to the left supraorbital and temporal regions, aggravated by reading. Cold extremities and backaches. Thinks she has sinus trouble. Past history: Measles and pertussis. Frequent attacks of bronchitis. Severe attack of influenza in 1920. Convalescent from December, 1920, to May, 1921. Sinus Complications. Tonsillectomy and adenoidectomy, 1914. Appendectomy, 1918.

Accidents—January, 1925, fracture of left clavicle sustained when horse which she was riding fell. February, 1925, injury to back while horseback riding. She was thrown into a poor position when her mount jumped. Backaches date from this time. March, 1925, kicked by an unshod horse in the left supraorbital region; not rendered unconscious, but stunned. Contusion and ecchymosis of left temporal region following the accident. May, 1925, a severe twisting of upper cervical region

while wrestling with a girl chum; since then extreme lateral head movements are painful.

Habits—Out-of-door type: cattle-range riding, tennis, swimming, etc. All functions normal. Familial; negative except for element of dissension between divorced parents which may have some bearing on psychic condition. Habitat: From birth to eighth year, in Wyoming. Eighth to twentieth year, lived in various parts of the United States. Twentieth to twenty-fourth year, in Hawaiian Islands. Residence in California for past six months.

Present Illness—Headaches, emotional and nervous symptoms related to influenza in 1920, and trauma in 1925. At this time I was confident of the existence of some psychological factor emotional in type. This was attributed to a love affair terminating in a broken engagement.

Physical Examination—A well-nourished young woman about 25 years of age, not appearing acutely ill. No positive findings except: Teeth—Upper right, first molar, upper left, second bicuspid, devital. Negative for apical disturbances. Some tender pea-sized right, posterior cervical adenopathy. Right rectus scar. Uterus, first degree retroflexion. Roentgen findings: Slight graying frontal and maxillary sinuses, left. Lateral and basal views of skull negative. Sella turcica normal. Chest, old fracture left clavicle. Heart shadows normal. Lung fields, some calcification of parenchyma of left lower lobe. Spine and pelvic plates negative. Eye, ear, nose, and throat: Investigation was advised and reported as negative except for a plus 50 refractive correction by Dr. Fabre-Rajotte. Fundus clear. Disc, retina, and vessels normal. Clinical laboratory findings: Hemoglobin, 75 per cent; red blood corpuscles, 4,400,000; white blood corpuscles, 6400. Differential, Wassermann, urine, nothing suggestive.

My tentative diagnosis at the time of the examination was psychic disturbances, probably due to influenza and either encephalitic in nature or activating a potential psychopathic tendency; emotional factor, love affair with subsequent reaction; environmental, change from semitropical to city life and strenuous studies; refractive error and sinus lesions; low grade anemia.

Subsequent Notes—November 15, 1925, she awakened at 9 a. m. with a severe headache referred to the entire right side. There was nausea, but no vomiting. She slept until 1 p. m. Upon awakening she was free from head pains, but was lethargic and weak (no previous medication). At 4 p. m., on leaning forward, she noticed the escape of a clear, slightly salty tasting fluid from her nose. On November 16, she felt ill, no pain, but fluid again escaped in the evening. November 17, she was able to collect 2 cc. of the fluid in a sterile tube. This was approximately one-half of the total amount that escaped. November 18, while washing her face a fairly large amount of fluid escaped.

Since the first fluid escape was discovered she has been able to collect small amounts daily. Repeated examinations by Wassermann and for sugar failed to give a clue to the character of the fluid. This was due probably to the fact that the specimen was not fresh. The patient was examined by Oscar Tobriner, who punctured the left antrum, applied slight suction before irrigating, with negative results. A fresh specimen of the fluid was examined by H. Oliver, who reported: A clear, odorless fluid, specific gravity (insufficient amount), positive for Fehling's—25 mg. to 100 cc., 6 cells per mm., faint trace of serum albumin and serum globulin on boiling. No precipitate on addition of acetic acid. Doctor Oliver stated that the specimen had all the characteristics of cerebrospinal fluid.

Final Diagnosis—I believe this to be a true case of cerebrospinal rhinorrhea.

CONCLUSION

Patients with an escape of fluid from the nose with no evidence of intranasal disturbance, acute or chronic, should be investigated to identify the character of the discharge.

Drugs, lumbar punctures, and intranasal manipu-

lations are of no value in cerebrospinal rhinorrhea, and the latter is contraindicated.

REFERENCES CITED

1. Halliburton: Chemical Physiology and Pathology, London, 1891, p. 335.
2. Thomson, St. Clare: The Cerebrospinal Fluids, published in London, 1899.
3. Loftus, John Edward: Philadelphia. The Laryngoscope, August, 1893, p. 617, with extensive bibliography.
4. King: London Medical and Surgical Journal, Vol. IV, 1834, p. 823.
5. Tillaux: Traite D'Anatomie Topographique, Paris, 1877, p. 56.
6. Schwartz, E. M.: Hysteria after Mastoidectomy, Simulating Brain Abscess, Cerebrospinal Rhinorrhea, same patient, New York Medical Journal, 116, 279-280, September 6, 1922.
7. Olmos, J. E., and Lizpondo, R.: Traumatic Cerebrospinal Rhinorrhea, Semana, Medical, F. 305-309, August 18, 1923.
8. Meyer, Adolph: Escape of Cerebrospinal Fluid Through the Nose, J. Nervous and Mental Diseases, New York, 1903, XXXI, p. 216.

DISCUSSION

EDWARD C. FABRE-RAJOTTE, M.D. (516 Sutter Street, San Francisco)—The very paucity of our knowledge of cerebrospinal rhinorrhea makes the subject intriguing; for anyone who reads a case history such as this and other similar ones in the literature, must feel that a great deal of interesting pathological physiology is being enacted behind the scenes. Are these headaches similar in nature to the often unexplained headaches of patients who do not have cerebrospinal rhinorrhea? In other words, is the escape of fluid simply a rare incident in a common disorder? May not the essential condition be a cerebrospinal hypertension rather than a developmental or other local defect as most theorists have suggested, and then may not the rhinorrhea merely be comparable to the occasional hemorrhage of the patient with vascular hypertension? To answer these questions we should need to know much about the cerebrospinal fluid pressure of these patients *before* the onset of the rhinorrhea (which presumably would thereafter serve as a check to any marked increase in pressure). Such observations, of course, are not available.

There is practical value in thus recognizing the limitations of our knowledge; and this is well illustrated by Doctor Frohman's report. Before the onset of the rhinorrhea the patient might easily have been labeled "functional," "psychoneurotic," etc., which, as events proved, would have been unfair, and it is well when we make such diagnoses to reflect on the ever present possibility of an unknown organic background.

GEORGE PINESS, M.D. (1136 West Sixth Street, Los Angeles)—In over 1500 cases of hay fever studied in this clinic, we have recognized no case of cerebrospinal rhinorrhea.

Two patients with this malady have been reported to us by a colleague, one of these of twelve years' duration, death being due to pneumonia; the other of eight years' duration and still living. In neither patient was the etiologic factor or underlying pathology determined.

In some patients the conditions may be associated with pituitary neoplasm if the tumor has decompressed itself through the sphenoidal sinus.

OSCAR TOBRINER, M.D. (350 Post Street, San Francisco)—The most important medical points elicited in the study of Doctor Frohman's patient are, the taking of an exact and thorough history and the laboratory examination of a fluid discharged from the nose, of the characteristics described.

The reason for the above is that the first gives the clue to the diagnosis, and the second establishes the diagnosis. By such an investigation all diagnostic intranasal procedures are prevented, for with the establishment of the diagnosis also comes the positive dictum—no operative interference.

Only laboratories with proper equipment for spinal

fluid examinations should be sought, and only pathologists well trained in its examination should be consulted.

The antrum operation was only done because the first report of the examination of the spinal fluid was negative, explained, as Frohman suggests, by a nonfresh specimen.

I would advise two or even three examinations when the report is negative in the face of suggestive clinical evidence. Had I waited for the subsequent report, I should not have performed an antrum puncture, as even that procedure I consider contraindicated.

I congratulate Frohman on his excellent presentation of this vague and rare pathological condition.

MERVYN H. HIRSCHFELD, M.D. (516 Sutter Street, San Francisco)—Doctor Frohman's very interesting case report leaves us in doubt as to the etiology which, after all, is an important consideration. Numerous x-rays taken from every angle revealed no abnormality. A ventriculogram might give valuable information, but one hesitates to suggest such a severe diagnostic procedure save as a last resort.

Had the injury of March 15 produced a basal fracture, the spinal fluid should have escaped before November 15. Other factors must have been acting to produce the headaches, convulsive seizures, psychic disturbances and impairment of smell in the left nostril, and hysteria is hardly to be considered in a patient presenting such a definite clinical syndrome. As Frohman indicates in his resumé of symptoms accompanying the discharge of spinal fluid from the nose, it usually occurs with increased intracranial pressure, and this in adults most frequently is due to brain tumor. More rarely a frontal tumor may erode the intervening structures and establish a fistula directly.

This patient will require repeated neurological examinations at short intervals. The symptomatology is indicative of a left frontal lobe lesion.

Cerebrospinal rhinorrhea should be regarded as a symptom rather than a clinical entity *sui generis*.

Five-Year End-Results in Treatment of Cancer of Uterine Cervix—In ten years Frank W. Lynch, San Francisco (Journal A. M. A.), has treated nearly 250 cancers of the cervix. One hundred and ninety-two of these were treated with radium alone, or by operation, usually with preliminary or postoperative irradiation. The roentgen ray has been used as an adjunct in some of the cases since 1923. One hundred and fifty of the 192 have passed a three-year period of observation. The five-year series consists of 107 patients, treated between March, 1916, and March, 1921, with radium or surgery. Of fifty-nine inoperable and borderline cases in which treatment was by radium only, fifty-three are dead, fifty-one of these of cancer. Forty-seven died within three years. Only five are alive and well, after five years. In twenty-three cases radium was used for prophylaxis or for recurrence after nonradical operations elsewhere. Twenty-three of these patients are dead of cancer, twenty-one died within three years, two died after three or four years. None are alive and well after five years. Lynch concludes that no method has yet cured 50 per cent of cervical cancers. The ordinary panhysterectomy has no place in the treatment of cervical cancers. Better results will be obtained by irradiation in all cases that are not suitable for truly radical surgery. The literature does not indicate that radium is likely to cure in more than a scant majority of the so-called operable cases. There is a chance for improving the total number of cures by operating in radically early cases in which preoperative radium and possibly postoperative deep roentgen-ray therapy have been used, provided the surgeon can perform his operations with a limited mortality.

It is rare to find a physician who can converse well on any subject outside his immediate professional interest. This means a loss both to the physician and the community. The man who has no interest outside his trade or profession is poor indeed. He misses that inward satisfaction which comes from the full use of all his faculties. As a practical point, he will be a better physician for a broader background.—Editorial, Rhode Island M. J.

THE USE AND VALUE OF CARBOHYDRATE TOLERANCE TESTS IN THE DIAGNOSIS OF DIABETES MELLITUS

By ALBERT H. ROWE AND HOBART ROGERS *

DISCUSSION by *Bernard Smith, Los Angeles; H. C. Shephardson, San Francisco; James W. Sherrill, La Jolla; H. Gray, Santa Barbara.*

THE carbohydrate tolerance test has, since its inception, been of steadily increasing importance to the medical profession. The scientific and clinical studies relating to this subject are too numerous and varied to be reviewed here. Three comparatively recent papers by Gray, John, and Mosenthal, have well summarized the literature and present clinical opinions based on a considerable experience. The important features of these will be briefly noted.

Gray has presented a statistical study based on the results of some 900 tests reported in the literature. He has constructed a composite curve from the findings on 300 normal persons who received the usual test load of 100 grams of glucose, and finds

the average fasting value is about 90; the average peak is about 140 at 30 minutes following the meal. The curve returns to the fasting level at three hours. Individual instances of high values were notable. There were values up to 160 for the fasting level, 280 for the peak, and 170 at the end of three hours. Of the three-hour values 41 per cent were above the fasting level. Glycosuria was noted in 40 per cent of 129 cases in this group in which a urine examination was recorded. Considering test loads other than 100 grams of glucose, Gray concludes that the curves obtained following the ingestion of from 25 to 200 grams of glucose show no greater variation than do individual curves on the same test load. The possibility that the tolerance of even mild diabetics may be injured by test loads of 100 grams of glucose leads Gray to recommend that a test meal of two shredded wheat biscuits and three ounces of milk be used at least as a preliminary test, i. e., essentially a 50-gram starch meal. In conditions neither normal nor diabetic he finds that hyperthyroidism, pregnancy, renal glycosuria, and hepatic disease have abnormal curves suggesting diminished carbohydrate tolerance. The curves in hyperthyroidism he found higher than normal, but not so much so as is usually stated. Hypothyroidism and pituitary disorders appeared to be without characteristic effect. Tolerance curves in diabetics, he finds, may be entirely normal, but are nearly always characterized by a high peak and a delay in returning to the fasting level. The height of the curve seems especially significant to him, for he recommends that if only two blood sugar estimations can be made that the fasting and the half-hour period be selected.

John, in reporting a second series of carbohydrate tolerance tests in 100 consecutive cases, says that the most significantly abnormal feature a curve may have is a failure to return to the fasting level within three hours. The absolute height of the curves he considers of little significance. He is so impressed with the significance of prolongation of the curve that he states "that sufficient practical information may be secured by a test of the fasting blood sugar and a second test made three hours after the patient has received 100 grams of glucose by mouth." Lack of absorption from the intestine as a cause of a delayed rise and prolonged curve seems to him of little importance clinically.

The indications for carbohydrate tolerance testing are listed by John as (1) repeated glycosuria; (2) a fasting blood sugar level of 130 or over; (3) obesity; (4) a family history of diabetes; (5) a blood sugar of more than 120, three hours after the last preceding meal. The chief service of the test is, he believes, to make possible the recognition of mild and unsuspected diabetes and prediabetic states.

Mosenthal feels that the use of a definite test load of 100 grams of glucose for all adults without proportioning the load to the weight of the patient is entirely satisfactory. Granting the possibility of exception, he believes that the fasting blood sugar level should not be over 120, the peak value should not be over 160, and the duration should not be greater than two hours. He divides carbohydrate tolerance curves into five types: (1) low; (2) nor-

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Hobart Rogers (242 Moss Avenue, Oakland). M. D. Indiana University, 1922. Graduate study: Research Fellow Indiana University, 1922-23; Internship Alameda County Hospital, Alameda. Present hospital connections: Providence Hospital, Oakland; Alameda County Hospital, Alameda. Practice limited to Internal Medicine since 1924; especially interested in Cardiology and in Diseases of Metabolism.

mal; (3) high; (4) prolonged; (5) high prolonged. A wide variety of conditions, including hypothyroidism, arthritis, nephritis, and cancer, give high or prolonged, or high prolonged curves suggestive of diminished carbohydrate tolerance. Of what value then is the test? Discounting prediabetic and mild diabetic states in which there are presumably from time to time irregular fluctuations from normal to abnormal and vice versa, Mosenthal finds that "every definite case of diabetes exhibits a high prolonged curve." A normal curve is therefore of great value in establishing a negative diagnosis. Cases showing glycosuria without other symptoms of diabetes but with tolerance curves either high, or high and slightly prolonged, have been observed by him to remain free from all other signs of diabetes for years—in one instance five, and one instance thirteen years. Mosenthal is therefore unwilling to make a diagnosis of diabetes on the presence of glycosuria and a high prolonged type of sugar tolerance curve, unsupported by other clinical evidence.

That a normal fasting blood sugar level does not rule out diabetes has been pointed out many times, but never better illustrated than in the following two cases. The first was a woman of 49 years who had slight but definite polyuria, polydipsia, pruritus,

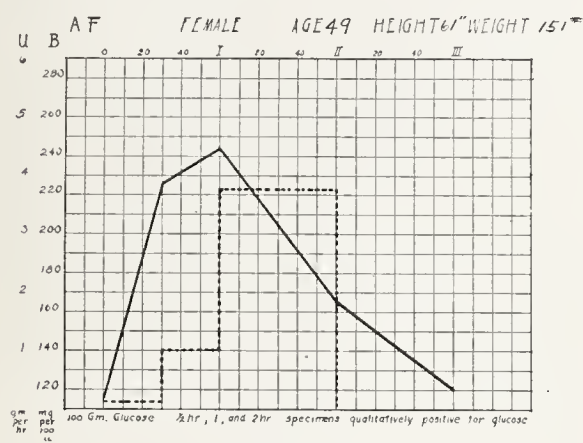


CHART I

and loss of weight. Her tolerance curve was characterized by a high peak (243), which was also delayed. The blood sugar was, however, near the fasting level at the end of three hours. Had only two blood sugar readings been made, one fasting and one three hours after the test meal, as suggested by John, the abnormal character of this curve would have been entirely missed.

The second patient was a girl of 15 years who had weakness, loss of weight, lack of ambition, and small recurrent infections about the face. Her tolerance curve is also characterized by a very high and much delayed peak (327) at two hours and a blood sugar three hours after the test meal only a little below the maximum recorded value. Had only two blood sugar readings been made, one fasting and another one-half hour after the test meal, as suggested by Gray, the abnormal character of this curve would have been entirely missed.

This curve illustrates also the danger in using a test load of 100 grams of glucose routinely in all cases. A hyperglycemia of such degree certainly places a severe strain upon the islet tissue, and one

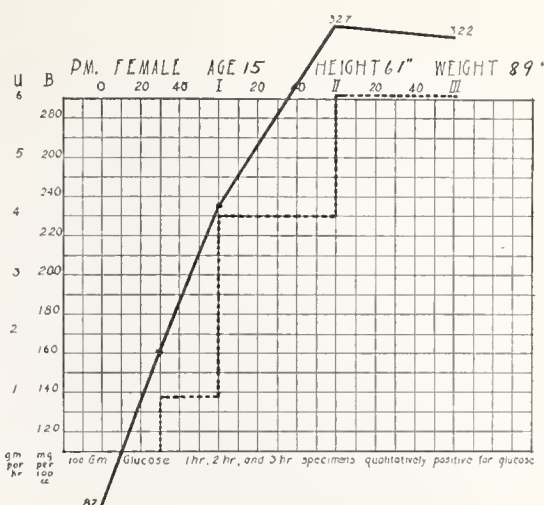


CHART II

could reasonably expect a reduction in tolerance as a result.

In a study to be reported in detail elsewhere¹ we have compared the curves obtained following the shredded wheat and milk meal suggested by Gray, with those obtained following the standard load of 100 grams of glucose, in sixteen normal and four nondiabetic persons. We believe that our series of normal and nondiabetic persons is a more carefully selected group than others that have been reported.

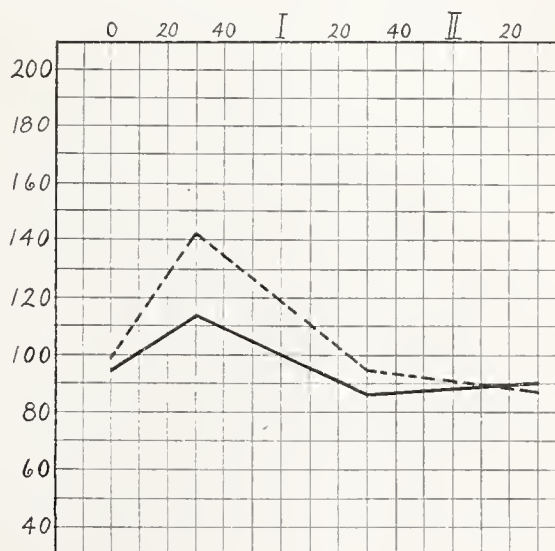


CHART III

They were mostly young college students from the University of California who had no medical complaints whatsoever. Curve III is a composite of the twenty. This curve shows that a shredded wheat and milk meal is a sufficient load to induce a glycemic response in normal people. The elevation of the blood sugar at the 30-minute interval following the shredded wheat meal is less than half that found following the glucose, and the entire curve is of shorter duration. Compared with the composite curve given by Gray, our composite curve shows the following features: (1) our curve starts slightly higher (98 instead of 90); (2) the peak is practically the same (142); (3) our curve has returned

¹ Rowe, A. H., and Rogers, H.: A Study of Carbohydrate Tolerance in Normals and Nondiabetics, Archives Internal Medicine, December, 1926.

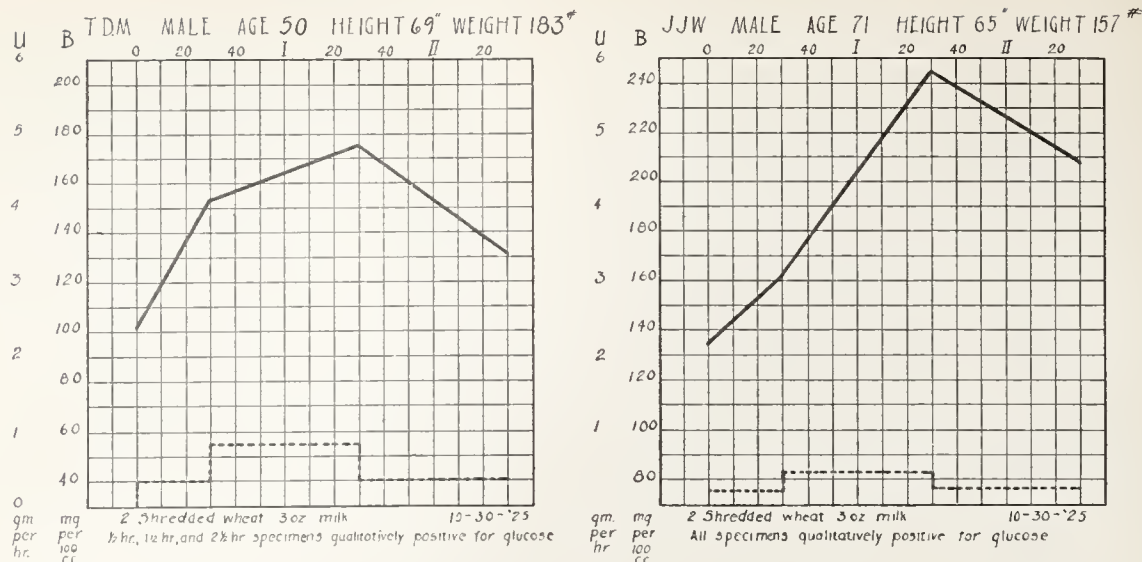


CHART IV

to the fasting level within one and one-half hours, falling to 88 at two and one-half hours. Gray's curve returns to the fasting level in three hours, being distinctly above the fasting level at one and two hours.

That the shredded wheat and milk test meal is a sufficiently large test load to elicit a diabetic type of response in fairly mild cases, is shown by the following two curves. The first is from a physician in whose urine sugar was found at a life insurance examination. His only symptoms were weariness, polyuria, and failing vision, and were so mild that he had not noticed them until his attention was directed to them. He was, however, somewhat overweight. With undernutrition and a small amount of insulin at first, his condition has greatly improved. The second case was referred to us by Doctor Miller of Porterville. This man had had glycosuria for seven years with practically no symptoms of diabetes. When seen by us his chief complaints were weakness, drowsiness, and pain about the heart. The curve following the shredded wheat and milk meal was distinctly of the diabetic type. He improved subjectively with diet and insulin. At the same time we noted that glycosuria was always present, and we determined to find his renal threshold. In the morning, before his breakfast, we gave

him 24 units of insulin and had him urinate every 15 minutes. When the urine sugar had fallen to a very faint trace with Benedicts, we took a blood sample. The next urine test was clear, and as the patient was beginning to feel weak, we gave him some carbohydrate. The blood contained 65 mg. glucose per 100 cc., which was the threshold level for this patient. Here we have evidently a case of diabetes mellitus complicated by so-called renal diabetes.

We have, however, in the following two cases, evidence that the shredded wheat and milk test meal is not a sufficient test load to demonstrate slight reductions in tolerance or prediabetic conditions. The first case is that of a college student aged 30 years who volunteered for our study of carbohydrate tolerance in normals. Other than some nervousness and some difficulty with his studies, he was having no trouble. His tolerance curve with the shredded wheat and milk meal was normal, but three days previously with 100 grams of glucose a slightly high and definitely prolonged type of curve had been secured. Moderate carbohydrate restriction was prescribed. After five weeks a second tolerance test with 100 grams of glucose gave a curve entirely within the accepted normal limits, though more prolonged than the composite of our normal curve.

The second case is that of a man 45 years of

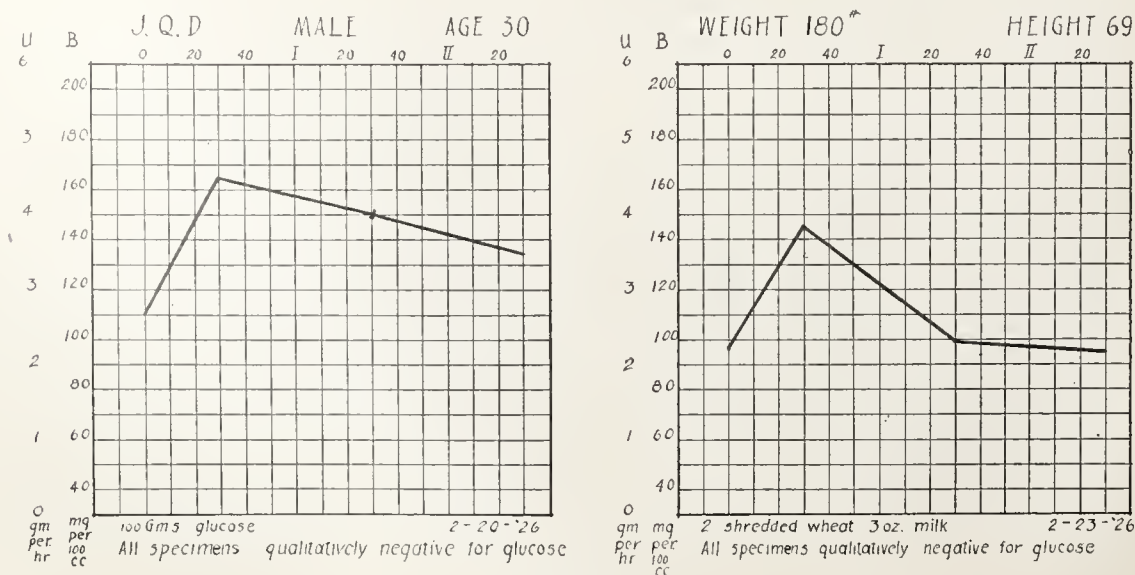


CHART V

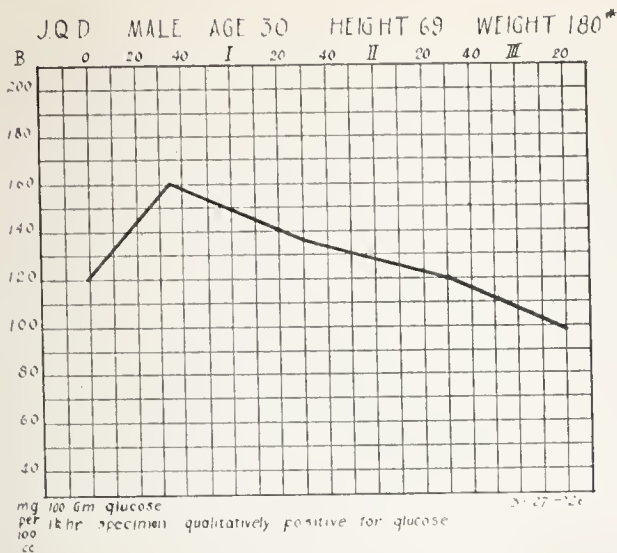


CHART VI

age who came to us because of glycosuria, discovered during the treatment of an urologic condition. A tolerance test with 100 grams of glucose gave a very definitely high, prolonged type of curve. One week later a test with the shredded wheat and milk meal gave a curve definitely high, but less definitely

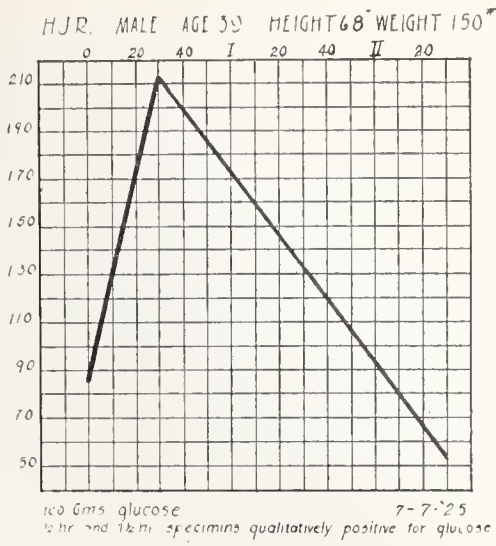


CHART VIII

The diagnosis of diabetes, we believe, depends now almost entirely upon blood sugar estimations, and to a considerable extent upon carbohydrate tolerance testing. We agree with John as to the indications for tolerance testing, namely: (1) repeated glycosuria; (2) high fasting blood sugar level (3)

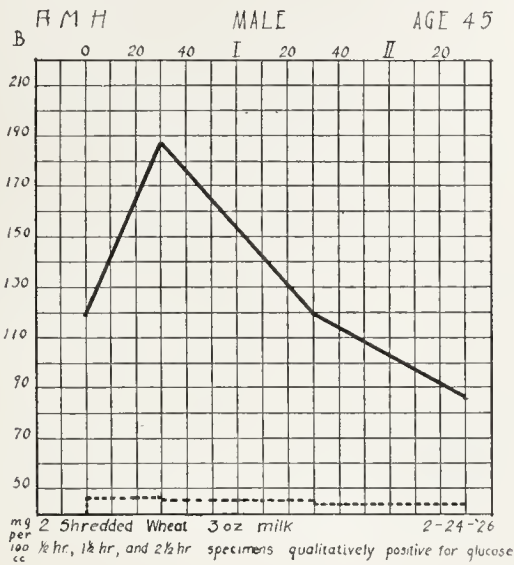
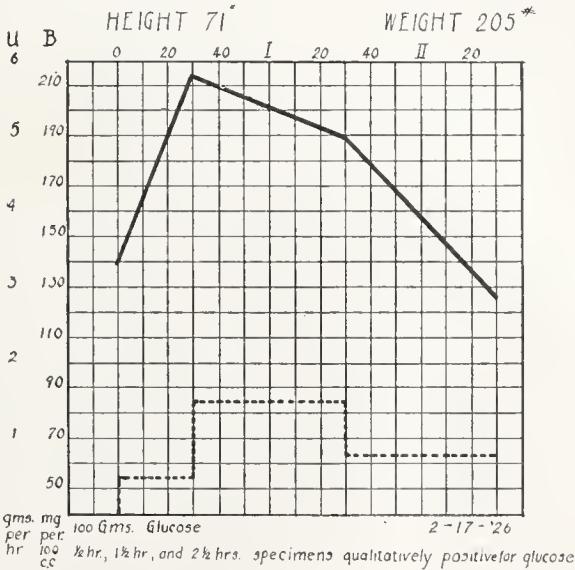


CHART VII

prolonged, which would probably have been termed of itself inconclusive.

The cause and significance of renal glycosuria are problems still undecided. The accompanying chart shows the tolerance curve of a man aged 39 who was referred to us because of glycosuria discovered at a life insurance examination. He had no symptoms of diabetes, but did have at irregular intervals symptoms suggesting duodenal ulcer. His x-ray study showed hypermotility of the stomach, an irregularity of the cap, and an indefinite shadow in the gall bladder region. The curve we interpret as nondiabetic because the peak, although high (212), is not delayed, and the return to the fasting level is rapid. The depression below the fasting level here shown (55) is greater than is commonly found. We suggest that the curve may be characteristic of hyperassimilation. The patient is being kept under close observation, and so far has shown no tendency to become diabetic.



obesity; (4) positive family history; (5) blood sugar above 120 mg. three hours after the last preceding meal. Neither a normal fasting blood sugar level, nor a normal level three hours after the last preceding meal, rules out diabetes. Neither is a fasting blood sugar level above 120 sufficient for a diagnosis, though all such must arouse suspicion. We regard prolongation as the characteristic feature of a diabetic curve, and do not interpret curves as diabetic unless this feature is manifested either by a delayed peak or by a failure to return to the fasting level within two and one-half hours. We feel that partial tolerance tests, with only two blood sugar estimations, are likely to be misleading, and should not be used. We have yet to see a definite case of diabetes with a normal curve. The possibility of abnormal curves in conditions other than diabetes does not ordinarily cause any trouble in diagnosis.

Our clinical experience with adults has not indi-

cated a need for proportioning the amount of glucose given to the weight of the patient. Should such fine calculation be necessary, it would undoubtedly also be necessary to make allowances for the known irregularities in absorption. Curves obtained following the shredded wheat and milk meal should be compared with the response of normals to the same test load. Our results would indicate the duration should not be greater than one and one-half hours. We believe that the shredded wheat and milk meal proposed by Gray should be used, at least as a preliminary, in all definite cases of diabetes; but we believe also that it is too light a load for clear-cut results in many of the mild cases, and that 100 grams of glucose must remain the standard test load for the study of such cases.

DISCUSSION

BERTNARD SMITH, M. D. (1032 West Eighteenth Street, Los Angeles)—The use and value of carbohydrate tolerance tests in the diagnosis of diabetes can be decided only when the technique of the test becomes sufficiently uniform to justify deductions from a large mass of accumulated material. It is wise to emphasize even more strongly than have Rowe and Rogers that the tolerance test does not differentiate from diabetes those conditions which show variations from the strict normal blood sugar curve. Dietary restrictions may be necessary in any condition that causes an excess strain or diminution of the glucose tolerance, but there is danger that the lists of complete diabetic cures reported will be erroneously increased if no more than a variation from the normal in the blood sugar curve is taken as the criterion in diagnosis of diabetes.

I agree with the present statement that a normal fasting blood sugar may be present in true diabetes mellitus and, also, that a fasting blood sugar may show a value well above 120 mgs. without a justifiable diagnosis of diabetes. Diabetic patients who have given the typical curve of the high prolonged type may later show a change in this response to the tolerance test, with a curve of high peak but with a return to the fasting level at the end of two hours. It is possible that this change in curve type may give information that is of prognostic value. But the full information from any carbohydrate tolerance test can only be obtained when blood sugar estimations are made with sufficient frequency to show the time of the curve peak and the rate of the curve return.

H. C. SHEPARDSON, M. D. (Fitzhugh Building, San Francisco)—Aside from firmly establishing the diagnosis of diabetes mellitus by means of a hyperglycemic blood curve, of almost equal importance is the utilization of the carbohydrate tolerance test in eliminating insulinary deficiency as the cause of an individual's glycosuria. It is quite as heavy and depressing a burden nowadays to carry around the mistaken diagnosis of diabetes as it is to suffer from syphilophobia. It is a fortunate circumstance, therefore, that by means of this test we can conclusively rule out diabetic disease. What this may mean to a patient is well illustrated by the following experience:

A man of 38 years had had in 1916 a severe, undiagnosed fever. At that time a glycosuria was found. His diet was greatly restricted. However, whenever sugar was used in his diet the glycosuria returned. He had none of the cardinal symptoms of diabetes, yet he had been repeatedly told he was afflicted with that condition. In view of the fact that certain other members of his family had had diabetes, he was convinced that only rigid attention to his diet would save him from an untimely death. He came to us for an entirely unrelated symptom, but incidentally desired further information on the progress of his so-called diabetes. Blood sugar curve was absolutely normal. We therefore informed the patient that no diabetes existed and that dietetic restriction was unnecessary, in spite of the fact that he still occasionally had glycosuria. This man had a renal glyco-

suria, and the mental relief he experienced in obtaining this information can hardly be expressed.

One of the greatest values of this excellent paper of Rowe and Rogers lies in the fact that they again bring to our attention the fallacy of attempting to depend on "short-cuts." There seems to be no practical reason, except in rare instances, of curtailing the number of blood sugar determinations, and certainly a better conception of the secretory activity of the pancreas may be obtained if several determinations are made at regular intervals, up to three hours after the ingestion of the test meal, than can be secured from one or two readings. In further substantiation of the necessity of several determinations it has been shown that in contradistinction to Gray's idea as cited in this paper, Martin and Mason (*American Journal Medical Science*, 1917, 50, 153) found in 1917 that the blood sugar in true diabetes may *not* reach its maximum until a period of two hours has elapsed after the ingestion of 100 grams of glucose.

While this paper and its discussion is confined to the blood sugar curve obtained in patients who have a glycosuria, it should be mentioned that a low flat curve indicative of an increased carbohydrate tolerance is frequently associated with hypopituitarism.

JAMES W. SHERRILL, M. D. (The Scripps Metabolic Clinic, La Jolla, San Diego)—The glucose tolerance test has given valuable aid in improving our methods of diagnosis of diabetes. When first introduced it was used principally to distinguish renal glycosuria from true diabetes, but further usage and experience have made the test invaluable in detecting latent and incipient diabetes. Like any other laboratory procedure, extreme caution must be exercised in interpreting the results, keeping in mind that the discovery of hyperglycemia and glycosuria does not necessarily warrant a diagnosis of diabetes. This is especially true in the absence of pre-existing signs and symptoms of diabetes. The finding of a prolonged blood sugar curve with or without glycosuria permits the diagnosis of potential diabetes, but until a large number of such cases are followed over a period of many years, will we be able to draw conclusive evidence as to the true relationship to diabetes mellitus. At the present time sufficient evidence on this subject is not available in the literature. It is noteworthy that a higher incidence of prolonged tolerance curves, frequently accompanied by glycosuria, is found in families of diabetic patients than in nondiabetic families. The test is of practical value, from the standpoint of diabetic heredity. Considering the heredity tendency of the disease, a tolerance test on a relative of a diabetic patient, properly applied and properly interpreted, may serve to detect early diabetes before the onset of marked symptoms.

In a considerable proportion of cases where early diabetes is suspected, the glucose tolerance test may furnish a clue for the clearing up of more or less distressing symptoms. Diabetes need not reach the point of glycosuria to cause symptoms, but in the stage of simple hyperglycemia may be responsible for neuritis, neurasthenia, fatigue, weakness, furuncles, and carbuncles. It is important that persons with such complaints be tested after glucose ingestion, and where there is hyperglycemia relief may be expected from an antidiabetic diet when other measures have failed.

This timely paper of Doctors Rowe and Rogers serves to emphasize the necessity of securing frequent blood specimens when performing a tolerance test. Undoubtedly many diagnoses are missed on account of laxity in this regard. Since knowledge as to the height and prolongation of the curve is essential for diagnosis, at least three specimens should be taken during the test. The half-hour, one-hour and three-hour specimens should be secured, and the urine should be examined at each hour period for at least three hours. Experience has taught us that little dependence can be placed upon the result of a single fasting blood sugar, and conclusions drawn from the blood sugar value at the third-hour period alone are equally unreliable on account of the rapid rise and fall of the tolerance curve in mildly diabetic persons. This experience is well summarized in Doctor Gray's paper: in forty cases of known diabetes the blood sugar was normal before glucose ingestion, and there was prompt return to normal at the three-hour period.

H. GRAY, M. D. (Santa Barbara, California)—At Doctor Rowe's request some comments are offered, with diffidence, and with the hope that the effort to make them concise will not make them seem dogmatic. In the paper cited (*Archives of Internal Medicine*, 31:241, February, 1923), I tried to consolidate the valuable data reported by various students, in small and scattered lots, and endeavored to confine my statements to pointing out in the consolidated tables what seemed significant. This procedure was intended to clarify some questions on which previously general laws had been proposed, based on evidence of so few cases that it should have been regarded as suggestive rather than conclusive. This method of inference from a small series of observations is a traditional weakness of mankind, and even of some of the keenest investigators. The result usually is disagreement between experienced men and, under the circumstances, it seems wise to say nothing except that more evidence is needed. Furthermore, when evidence continues to be piled up to settle a question that, as far as I can see, has been pretty generally agreed upon since Jacobsen in 1913 (to judge at least by reading the extensive literature) it seems opportune to restate our problems more specifically.

Question 1. When a carbohydrate tolerance test seems desirable, how many and which blood sugars should be regarded as standard? That the peak of the curve may occur at an interval varying from fifteen minutes to three hours has, of course, been known to anyone familiar with literature since Jacobsen (*Biochem. Zts.* 56: page 488, Table IX, Case 4, 1913).

Ten years later my paper took for granted that these facts had become generally known and were generally interpreted to answer Question 1 thus: Half-hour, one-hour, and three-hour samples (practically as stated by Sherrill in his discussion). This question seems to me to be in a settled state today.

Question 2. How much value is the fasting blood sugar? There are still today several answers:

1. That it is most important of all (Holst: *Acta Scand. Med.* 63, Fasc. I, 1925-6).

2. That it is very important (evidence is given in my paper and also in *Medicinal Clinics of North America*, 7: 675, November, 1923).

3. That little dependance can be placed upon it. (Sherrill and, in deed, a great many others.)

One admits that many diabetics have normal fasting blood sugars, but we have to remember that some non-diabetics have high and long curves; that some diabetics have normal curves; hence even curves are fallible, and that every general rule must be applied with reservation proportionate to the frequency of exceptions known to occur in that particular law. Clearly more evidence is necessary.

Question 3. When need the urine be examined? Opinions agree pretty generally: Each time blood is taken, to determine grams per hour sugar output.

Question 4. When are tolerance tests desirable? There are at least three opinions:

1. Seldom, because measured diets and urinary tests can be made to suffice (Joslin, Woodyatt), and because if the physician gives the patient a huge drink of sugar the patient not so rarely accepts that example as a precedent sufficient to justify an occasional sugar spree (Joslin).

2. Occasionally when low tolerance is suspected, and when adequate criteria are apparently not available with less drastic procedure (this policy is followed by physicians who can conveniently not be listed here, owing to the difference of opinion as to which criteria are adequate to recognize the diabetic or prediabetic state. To illustrate, here is one opinion (in which I am not alone) that falls within this group: The danger of using a test load of a hundred grams of glucose (Joslin, Kawachi, Tachau, Martius, Allen, Salomon, Ohler, and the graph of the girl of 15 given by Doctor Rowe and Doctor Rogers), together with existing evidence of normal curves in diabetics who later show frank diabetes (Bailey's case M. B. and Strause's case C. F., cited in 1923 paper; Doctor Shepardson's case may easily fall into this group when it has been followed for five years or more) should

lead the diabetician not to harp on a pathognomonic test, but to integrate all clinical data.

For example, according to this view, one would treat a patient as diabetic without demanding a tolerance test when the following symptoms are present: Glycosuria of, say more than 15 grams per twenty-four hours, coupled with complaints such as loss of weight, polyuria, furuncles, or with a family history of diabetes, or with obesity, or with fasting blood sugar of 120 mg./100 cc., or with blood sugar of 160 (or whatever level one favors) within three hours following a meal.

To take an individual case in which consideration of all clinical data is helpful, Rowe and Rogers' girl of 15 shows a curve which, it is true, falls at one-half hour just within the boundary of 160 mg., but which owing to the history and glycosuria I should feel supported by odds of ten to one the diagnosis of diabetes without insisting upon further blood sugars. Furthermore, I should agree cordially with Rowe and Rogers' admission of the danger in using a test load of 100 grams routinely. In a case like this girl I should agree with those, in the minority I admit, who feel that it is wrong to subject the patient to such an assault on tolerance.

3. Frequently, on the judgment that these several symptoms are *not* adequate (John, Rowe, and Rogers, Shepardson, and others).

Question 5. Are there many practitioners who meet difficulties in securing blood samples, and therefore wish to take the smallest possible number? Doctor Shepardson seems to believe not. In my 1923 paper I thought there were, and today I believe there still are many such practitioners. May I repeat I was in that section addressing not diabetic specialists who are aware of reported experience that neither normal fasting nor normal three-hour blood sugar rules out diabetes, and who also have abundant laboratory facilities, but I was hoping to reach the practitioners who besides the above difficulties are obliged often to pay to a commercial laboratory from three to five dollars for a blood sugar, and also to persuade the patient to accept four punctures.

Question 6. For such practitioners, what advice is practical? "Two values are far more than twice as helpful as one." The alternative seems to be to advise such colleagues that it is better to do either all blood sugars or none.

Question 7. When only two are done, and considered together with other clinical data, how many diagnoses are missed? For answer one finds statements implying that many are missed, but as yet evidence is scanty. One wonders, are more diagnoses missed because patients object to the four punctures, and therefore postpone or evade going to a doctor, than are missed by having only two blood sugars.

Question 8. If in the circumstances named two blood sugars constitute legitimate procedure, which two should be selected? There seem here to be two main preferences: fasting and half-hour period versus fasting and three-hour period. The former combination seems supported by the tabulations in my 1923 paper. The data of Hamman and Hirschmann, John, Rosenberg, and now Rowe and Rogers support the latter combination.

Question 9. Is a smaller load than the classical 100 grams of glucose sometimes preferable? Yes, according to the number of students summarized in my paper of 1923, and some students since, including most recently Rowe and Rogers.

Question 10. As a lighter load, what dose is preferred as adequate? Evidence tabulated in 1923 afforded various opinions. The general trend seemed to me to favor 50 grams given as starch. This dose, however, can hardly be regarded as at all widely accepted as yet.

Question 11. What forms of starch? Again the evidence tabulated offered a choice. The most convenient seemed bread or possibly a shredded wheat and milk meal. On this point Rowe and Rogers' evidence seems extremely instructive and, indeed, the whole paper has been most helpful to me.

AUTHORS (closing)—Our paper emphasizes the importance of the glucose tolerance test in the diagnosis of questionable cases of diabetes mellitus. Where the classi-

cal symptoms of the disease are present along with hyperglycemia or even glycosuria, a tolerance test is altogether unnecessary. The test is valuable, however, where suggestive symptoms of the disease occur in the absence of glycosuria. High renal thresholds in true diabetics, especially in old patients, are not uncommon. The meaning of a definite glycosuria in the absence of any symptoms of diabetes mellitus, moreover, must often be determined by the glucose tolerance test. Our series of curves in normal students again reveals the occurrence of intermittent glycosuria in normal people. Renal diabetes with continuous glycosuria due to a low kidney threshold is not uncommon, and its diagnosis is made possible by the tolerance test.

For the present, we must depend on the standard glucose test for our diagnostic data. A palatable carbohydrate meal, however, would certainly be a more normal load than 100 grams of glucose. If such a carbohydrate meal ever supplants the glucose meal, it will be necessary to determine the optimal amount of mixed carbohydrate that will furnish the proper strain on the pancreas to reveal a true diabetic tendency. Our study of the 50-gram starch meal indicates that it is too light a load to detect mild types of this disease. Until more work of this type has been done with larger amounts of mixed carbohydrate food, we must continue to use the standard glucose test in our investigation of questionable causes of diabetes mellitus.

SOME CERTAIN CONSIDERATIONS IN TREATING THE MENOPAUSE†

By LUDWIG A. EMGE *

DISCUSSION by H. Lisser, San Francisco.

WITH the advent of endocrinology and organotherapy it was generally expected that a complete revolution would occur in the treatment of the menopause. There was an outburst of organotherapeutic enthusiasm carefully nursed along by semicommercial literature. Then came a wave of disappointment and the clearer thinkers in the profession began to counsel against the indiscriminate use of organic preparations. We are now in the negative phase, and skepticism threatens to bring into disrepute one very valuable but no infallible agent in the treatment of the menopause.

It is needless for me to repeat the well-known symptomatology of the menopause. I shall confine myself to a few remarks on the vasomotor and biochemical phenomena studied during the last few years.

Blood Pressure—Changes are common but definite percentages are difficult to arrive at, because the menopausal age and the common hypertension age, due to pathologic changes, occur at about the same period in life. In the absence of demonstrable or-

ganic lesions hypertension should be transient, as readjustment of the endocrine factors controlling the vasomotor nervous system takes place. If blood pressure equalization does not occur at the cessation of other menopausal symptoms it is safe to assume that undiscovered organic disease exists. From the literature and my own observation I judge that about 40 to 45 per cent of women in the menopause have hypertension, 5 to 10 per cent of whom will approach a blood pressure of 200 mm.; 40 per cent remain unchanged and from 10 to 15 per cent have hypotension. Shifting from one to the opposite extreme has been repeatedly observed.

Metabolism—Observations are still quite few in number. Basal metabolism studies made during either the artificial or normal menopause suggest that approximately 55 per cent of women have a lowered metabolic rate, 30 per cent remain unchanged, and 15 per cent show a rate above normal.

Blood Calcium—It is known that in osteomalacia in women progressive calcium loss can be arrested by castration. Hence it has been assumed that certain ovarian functions have a close affinity to the calcium exchange of the body. During the menopause calcium commonly is increased if we may go by the few reports on record. This change seems to follow the removal of the inhibiting ovarian hormone to the adrenal, hypophysis or thyroid glands. The subject has been studied indirectly in idiopathic climacteric menorrhagia which by injections of calcium chloride has been markedly benefited. The German literature has persistently reported good results after the use of other forms of calcium given together with sedatives or ovarian preparations in the treatment of menopausal vasomotor disturbances due to sympathetic irritability. Assuming that these clinical observations stand undisputed for the present, we may deduce that calcium metabolism and irritability of the sympathetic nervous system are closely related.

Endocrine Relations—While our knowledge is fragmentary and theoretical in many respects, we have at least some definite factors which repeat themselves quite regularly. We know that the Graafian follicular apparatus disappears quite rapidly as a consequence of which atrophy of the generative organs and amenorrhea occur. This is followed by hypertrophic phenomena in the secondary sex glands, i. e., thyroid, hypophysis, and adrenals. This hypertrophy usually manifests itself in one gland and most often in one constituent of this gland. Thus, it is only the cortex of the adrenal gland which hypertrophies. In the hypophysis it commonly is the pars anterior, while in the thyroid a general hypertrophy is seen. It is this peculiar shifting of the endocrine balance which is responsible for a host of different manifestations in different individuals. If one gland alone compensates for the ovarian loss the end-manifestation is usually quite apparent. Thus, we speak of such types as the pituitary or thyroid types, either of which may again be expressed in a hyper- or hypofunction type. In other words, a tertiary action takes place in which the increased influence of the hypertrophic gland leads to an inhibition of another gland manifesting itself in hypofunction. Consid-

† Read at the meeting of the Nevada State Medical Association, Reno, September 24, 1926.

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ered as a whole our problem is a pluriglandular one, although basically it must be regarded as a monoglandular question. The difficulty arises in the determination of the pivotal gland. We have similar problems in amenorrhea of earlier ages. For instance, in hyperthyroidism the overactive thyroid inhibits the ovaries producing secondary amenorrhea. While in myxedema the hypophysis enlarges producing a tertiary amenorrhea. The lack of time prevents me from going further into this question. While we do not know anything of the origin of primary ovarian inhibition ushering in the climacterium, we have some basic information of the processes that follow. Based on the latter a fairly successful organotherapy combined with proper hygiene and some symptomatic therapeutics offers a reasonable outlook for success in the treatment of the menopause. There is no doubt in my mind that the greatest success in treating any form of the menopause is reached by a proper management of the patient during its early phases. If we could teach women to recognize this fact we would thereby remove a serious stumbling block to therapeutic success.

Since our knowledge of the endocrine dynamics of the menopause is still so very fragmentary, it is obviously impractical to lay down definite rules for an endocrine treatment. At best, we must content ourselves for the present to differentiate between certain general types of menopausal changes which may represent either thyroid or pituitary or adrenal dysfunctions. In observing this rule we shall find a fair amount of guidance for a more rational utilization of organic preparations. Where types overlap, pluriglandular treatment may become necessary but should at all times be considered as a last resort. It has been my experience that a large majority of menopausal women respond to monoglandular therapy. Since the predominance of one gland may be displaced or overshadowed by another during the progress of the menopause, it is obvious that different types of glandular preparations may have to be substituted for each other.

Theoretically, the ovarian preparations should fill all of the demands of endocrine deficiencies during the menopause. Practical experience has taught us that this is not the case. To my knowledge only vasomotor instability and nervous irritability, when not accompanied by change in blood pressure, will respond readily to either ovarian residue or whole ovary. Apparently the adrenal glands are thus balanced and sympathetic irritation is removed. Thyroid extract is to be utilized when there is low blood pressure, mental depression, and lowered metabolism. It is obvious that this substance should not be used when the opposite condition exists. Corpus luteum is most helpful in hypertension. It should not be forgotten that this substance antagonizes the thyroid gland. It also stimulates the pituitary gland and hence is of value in pituitary depression. Direct pituitary stimulation through pituitary preparations is still very unsatisfactory. At times pituitary disturbances seem to respond well to a combination of whole ovary and thyroid extracts.

There is no standard dosage for any of the organic preparations used in the treatment of the meno-

pause. With the exception of thyroid none of these substances is standardized. Hence one must feel one's way by starting with small doses and rapidly increasing them to the point of functional saturation. I am not at all convinced that much is to be gained by hypodermic medication in preference to medication by mouth. Fresh dried organic extracts protected against deterioration, especially when they are put up in glycerine, seem to give as much and often more satisfaction than hypodermic preparations. They have the added advantage of less discomfort and less expense to the patient. A great deal of dissatisfaction has arisen from the use of shopworn and indifferent preparations. There is no doubt that available products differ materially in active principles in one given preparation. It is therefore most essential that one acquaint oneself with the true equivalent of the fresh substance contained in the commercial article. Consequently one should specify precisely the make of the substance to be used. By keeping careful records one can soon find out what substances are most suitable and serviceable. Next, close supervision of the patient with regard to blood pressure and visible body changes will prevent any misdirected effort should shifting of the endocrine balance take place.

Recently calcium, at times combined with theobromine, has been advocated as an important adjuvant to ovarian organotherapy. My experience with it is still too limited to express an opinion as to the value of this method. What I have seen seems to substantiate the claims set forth in the literature.

Some very interesting reports on the radiological treatment of the menopause come from Germany. According to the type of the endocrine dysfunction either the thyroid or the pituitary gland is exposed to given doses of x-ray. Astonishing results are claimed for this treatment in which the psychic factor has been definitely eliminated by proper experiments. As far as I can learn from the literature this treatment has not been used elsewhere. If the claims made for it can be substantiated it will displace organotherapy in either the artificial or normal menopause.

In spite of our best efforts we find only too often that organotherapy alone will not solve our problem. We then have to fall back on the time-honored remedies of an earlier period. Among them valerian preparations seem to be the most helpful. Proper body and mental hygiene should always have a prominent part in the treatment of the menopause regardless of what other course of treatment is pursued.

There are a great many other aspects of the menopause that are most interesting, but they must be left to another discussion. In leaving the subject I once more caution against the indiscriminate use of the extracts of endocrine glands. They are not infallible in their action nor are they fool-proof in the hands of the careless. Notwithstanding the opinion of a few well-known observers who dispute any merit of this method of treatment, I have learned from personal experience that sensible organotherapy is a most helpful agent in the treatment of the menopause.

DISCUSSION

H. LISSER, M.D. (Fitzhugh Building, San Francisco)—Doctor Emge can always be counted upon to present a sane and conservative viewpoint; this paper is no exception. With brevity and clarity he has presented the essential facts as far as present knowledge permits.

The matter of endocrine control of calcium metabolism has acquired a renewed and more precise interest since the remarkable work of Collip, who has perfected a potent parathyroid extract (now available as "Parathormone"). This extract has a specific and profound effect in raising the blood serum calcium; it mobilizes calcium; it is only effective by injection. Tetany is a state of hypoparathyroidism and is accompanied by a strikingly diminished blood serum calcium. The most characteristic phenomenon of this incretory disease is increased excitability of the entire nervous system, motor, sensory, psychic and vasomotor. It seems a bit contradictory therefore to assume an increased calcium content after the menopause and hold it responsible for vasomotor excitability. Calcium determinations must be performed with scrupulous accuracy; perhaps previous observations have been incorrect. At any rate if any noteworthy disturbance in calcium balance attaches to the menopause, the *modus operandi* is probably an indirect one through derangement of parathyroid function. There is a hint here for interesting clinical experimentation.

The artificial menopause is apt to be more severe than the natural climacteric, probably because it is so abrupt, and the earlier it is produced the more violent are the symptoms. Indeed these may be so distressing as to cause utter wretchedness and incapacity. The severer the symptoms the less efficacious the remedies. Surgeons cannot be warned too strongly to spare the ovaries wherever possible, especially in young women. Carelessness in this matter is positively reprehensible.

Not long ago I attempted to classify the various commercial preparations according to their merits. In Class A were grouped those extracts which were standardized and potent, namely, thyroid, insulin, parathormone, adrenalin (from the adrenal medulla) and pituitrin (from the posterior hypophysis). Class B included extracts which were worth while but inconsistent; Class C comprised those which were deemed practically worthless. Ovarian extracts were assigned to Class B. Rapid strides are being made in the biochemical investigation of glandular extracts; only a few years ago parathyroid and pancreatic extracts would have been ignominiously dumped into Class C. Indeed there are important developments in the study of ovarian products, notably by Allen and Doisy of St. Louis, and the Denver group of Frank Gustavson, etc.

We may confidently look forward to a more satisfactory ovarian therapy before very long. In the meantime we must do the best we can with the methods Emge has outlined.

Infantile Tetany—Twenty-one cases of infantile tetany have been studied by John P. Scott, Philadelphia, and Saul J. Usher, Montreal (*Journal A. M. A.*). They found that calcium chloride and ammonium chloride were specific in relieving the convulsions of tetany as long as they were given. In one case, when the calcium chloride was discontinued, even for a day, the convulsions reappeared. Furthermore the signs of latent tetany, such as the Chvostek and Trousseau signs, were found present even after several weeks' administration of either salt. In the main, there was an appreciable elevation of the blood calcium after the giving of either salt, but in two cases there was a definite lowering. Cod liver oil in large doses, when combined with calcium chloride, or by itself, slowly and permanently raised the blood calcium into the normal range. Ultraviolet ray treatment gave the most rapid restoration of the blood calcium to normal figures. Frequent treatments with the mercury vapor quartz lamp give the quickest and most permanent results. Both the tetany and the accompanying rickets are cured. The ultraviolet rays raise the calcium concentration and also that of the inorganic phosphorus to normal by causing increased absorption of these elements from the gastrointestinal tract.

URETERAL REFLUX

By JAMES R. DILLON *

The possible conditions of reflux in my patients seem to be associated more with urinary infection and pathological conditions of the kidney than with urethral obstruction.

Utilizing the principles of gravity, ureteral backflow and bladder distention, producing a hypertonicity of the bladder musculature will greatly aid in obtaining good pyeloureterograms in patients hard to catheterize or with overactive ureteral peristalsis.

The possible use of ureteral reflux in the treatment of bilateral pyelitis instead of kidney lavage in patients where reflux is found to exist is indicated.

Reflux undoubtedly plays an important part in carrying infection of the lower urinary tract to the upper, and possibly from a diseased kidney to a normal one, and we should use more caution in the treatment of patients with cystitis.

DISCUSSION by Louis Clive Jacobs, San Francisco; L. P. Player, San Francisco.

MANY articles have appeared in the last few years calling our attention to the condition of ureteral reflux, or backflow of bladder urine into the ureters to the kidney pelvis. This phenomenon has been studied from the clinical and animal experimental standpoints, both as to its occurrence in establishing the fact of ascending infection of the kidneys and its treatment, but little has been mentioned as to the practical use that may be made of it in urology.

Most of the reports in the literature have been on the occasional accidental observation of reflux in the taking of cystograms and has generally been associated with pathological conditions, as shown by Bumpus in a study of 1036 cystograms, finding it in one or both ureters in eighty-nine pathological cases, or 8½ per cent. Braash and Draper, who made an experimental study on dogs in doing meatotomies on the ureteral orifices concluded that the peristaltic action of the ureter was sufficient to protect the kidney even if the ureterovesical valve was destroyed, and that "renal infections are seldom if ever ascending, but rather hematogenous in origin."

Graves and Davidoff found it occurred in 73 per cent of a large number of normal rabbits, and in 78 per cent where the ureters had been rendered abnormal by previous operative procedures. They conclude that the phenomenon of reflux depends primarily upon the sustained tonus of the bladder musculature as it actively resists distention; and that the ureterovesical valve and ureteral peristalsis are insufficient protections "against the ascent of accumulating bladder contents into the ureters in the presence of an actively contracting bladder with vesical neck obstruction." Also they did not see antiperistalsis in any normal ureter and found it in no way concerned with regurgitation.

My experimental work with the assistance of Dr. B. A. Cody on normal animals has been along the lines practiced in the treating of bladder conditions and the making of urological examinations on the human, with no attempt to attain the hyper-

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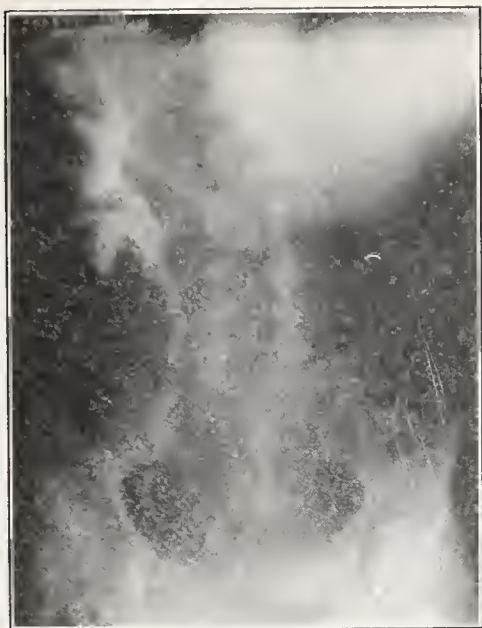


Fig. 1. Prone Position—Bladder filled with 16 oz. sterile water. Pyelogram then taken showing left hydroureter and kidney tumor.

tonicity of the bladder musculature as practiced by Graves and Davidoff. Therefore, our experimental results were unsatisfactory as far as reflux was concerned, and similar to those obtained by investigators previous to the above authors.

The conclusions drawn in this report are based on the study of patients in whom the principle of ureteral backflow was utilized in obtaining pyelograms in many urological examinations, and in the treatment of bladder and kidney conditions where possible reflux existed, or where we did not want it to occur.

CASE I—P. W., age 65, admitted to the San Francisco Hospital November 2, 1923, complaining of hematuria and pain off and on from August 1, 1923, when he had the first attack of a sharp, steady aching pain in the lower left quadrant, with no radiation, lasting thirty-six hours. He was cystoscoped and studied at that time in another institution, which reported bleeding from the left kidney, but normal kidney function for indigo-carmin

and phthalein from both kidneys, and normal urines; but they failed to get pyelograms, because of the rapid drainage of the opaque solution from the kidney pelvis and ureter into the bladder. At the time I saw him the general physical examination revealed nothing significant except that the lower pole of the left kidney was palpable on deep inspiration, and he had a moderately enlarged prostate, but no residual urine. Cystoscopy showed diminished function of the left kidney; indigo-carmin appeared right 6 minutes and left 11 minutes. Phthalein appeared right 4 minutes and left 5 minutes, faintly. Right, 25 per cent; left, 10 per cent. Leakage into the bladder very slight, but I was as unsuccessful in my first attempts at pyelograms as my predecessors had been. Five days later he was again cystoscoped and ureters catheterized and the bladder filled with 16 ounces of sterile water before the 15 per cent sodium iodide was injected through the ureteral catheter, resulting in a good pyelogram, showing a dilated left renal pelvis and ureter, with very little x-ray evidence of malignancy (Fig. 1). Operation showed a normal-appearing kidney in the lower two-thirds, but the entire upper third was replaced by a hypernephroma which had spread over the diaphragm, renal pedicle and aorta.

The bladder was filled with sterile water with the idea of bringing the intravesical pressure to bear upon the ureteral valve, and overcoming the very active ureteral peristalsis; but it can also be partly explained by the production of the hypertonic state of the bladder musculature which causes the ureteral orifice to open and the bladder contents regurgitating and equalizing the pressure between the bladder and the ureteral-kidney pressures. For the last three years we have put our patients in the Trendelenburg position while injecting the opaque solution, followed by pyelograms in the prone and standing positions, which were immediately developed and inspected; if not satisfactory the work was repeated, or if found to have had the solution drain into the bladder too rapidly, the bladder was then filled with sterile water up to 16 ounces and pyelograms retaken. In many instances where catheters could not be passed more than a centimeter or so, very good uretero-pyelograms were obtained by putting the patient in the Trendelenburg position and utilizing the principles of gravity, ureteral back flow, and hypertonicity of the bladder musculature.

CASE II—L. M., age 54, entered Stanford Clinic No-



Fig. 2. Prone Position—Showing opaque solution has drained back into bladder.



Fig. 3. Trendelenburg Position—Showing reflux of solution from the bladder into both ureters and kidney pelvises.

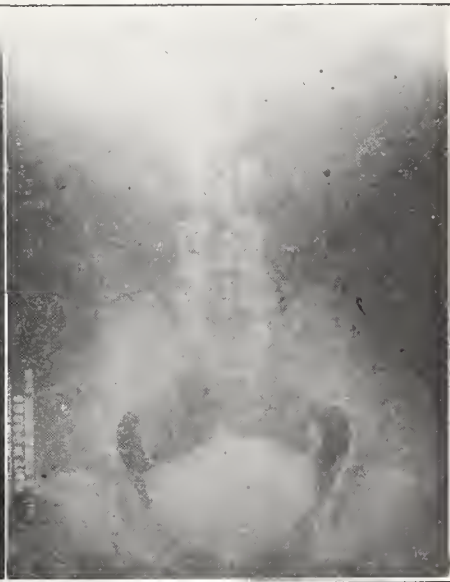


Fig. 4. Cystogram in Trendelenburg Position—Showing reflux of opaque solution into both ureters and to left kidney pelvis.

vember, 1925. Complaint, gonorrhea. Had had three previous attacks; last one started three weeks ago. Discharge stopped and left testicle swelled. Had been treated in various clinics over the country for bladder trouble. Examination showed a thickened left epididymis, no urethral discharge, but urine full of pus, colon bacilli and staphylococci. Prostate small, no induration, no residual urine. Urethral caliber, 30 Fr. to bladder. Cystoscopic examination showed a slightly inflamed bladder mucosa, with normal appearing ureteral and urethral orifices. Indigo-carmin appeared from the left ureteral orifice in 6 minutes in good density and none from the right in 35 minutes. Pyelograms were then taken in the prone position after injecting in the Trendelenburg. Inspection showed all the sodium iodide solution in the bladder (Fig. 2). The patient was returned to the Trendelenburg position, a few cc. more of the sodium iodide injected, and new pyelograms taken in this position, showing practically all of the opaque solution had drained out of the bladder into both ureters and kidneys, with the right catheter coiled in three or four loops in a dilatation of the ureter a few cm. from its orifice (Fig. 3). To prove the phenomenon of reflux in this patient, a cystogram was taken a few days later with 5 per cent sodium iodide solution showing regurgitation into both ureters and to the left kidney (Fig. 4). The x-ray showed a hydronephrosis and hydroureter on the right and a renal tumor on the left, which was this man's "sole support."

In two recent private cases of pyelitis in women in whom the ureters were easily catheterized to the kidneys and the bladder fluid regurgitated to the kidney pelves and ran out of the catheter in almost a stream, I failed to make any progress by kidney lavage. Although I did not take cystograms in these patients to ascertain the presence of ureteral reflux, I started treating them once a day by washing the bladder gently with boric solution, injecting not over an ounce at a time, and then instilling one-half ounce of 2 per cent mercurochrome. The hips were elevated and the patients instructed to hold the solution in their bladders as long as they could, which varied from a few minutes to more than an hour. Large perineal pads were placed over the vulva to catch the escaping urine. They made far more remarkable progress clinically than they had with the kidney lavage, the urine becoming macroscopically clear. Of course, we cannot draw positive conclusions from only two cases, but there is enough suggested evidence to warrant us studying such patients with cystograms where the bladder contents is regurgitated up the catheterized ureters to the kidney pelves and out through the catheters.

Another lesson to be learned from the principles of reflux is the treatment of posterior urethritis and the after-treatment of prostatectomies. Many complications of pyelitis are undoubtedly due to too vigorous bladder irrigations and to overdistention, as well as in some cases to the hypertonic musculature of the bladder as it becomes slowly filled when the wounds first close, regurgitating to the kidneys the infected material from the inflamed bladder. Such possibilities should be kept in mind and attempts to avoid them by more gentle bladder irrigations and urinary antiseptics be made.

DISCUSSION

LOUIS CLIVE JACOBS, M. D. (462 Flood Building, San Francisco)—Everyone who has had a wide experience in urological investigations must necessarily be impressed with Doctor Dillon's valuable contribution because of the many difficulties encountered in obtaining proper pyelograms. Utilizing his knowledge of the mechanics and physiology of the bladder and ureter, Dillon has devised

an improved technique, based on the study of the phenomenon of ureteral reflux. Both clinicians and research workers have demonstrated the existence of this phenomenon.

I have frequently encountered a urinary reflux in male patients with pathological conditions of the bladder associated with a hypertrophied prostate. When reflux is present, opaque solutions, such as sodium bromid or potassium iodid, that have been introduced into the bladder, can be roentgenologically demonstrated as having passed up the ureter into the kidney pelvis.

In my investigations of hundreds of female patients at Mount Zion Hospital, where cystograms are taken as a routine procedure, no reflux was observed, excepting in those having a dilated ureter, concomitant with a pyelonephritis. Nevertheless, I agree with Dillon and other investigators that such a condition necessarily must exist or can be easily produced, where the competency of the opening is interfered with either as a result of a pathological condition or the mechanical interference with ureteral catheters.

Dillon's method of filling the bladder with the patient in the Trendelenburg position is commendable, and its utilization will clarify many doubtful urological diagnoses.

In several of my recent patients I have obtained excellent results by the adoption of this method. Likewise, the utilization of gravity with the patient's hips elevated in lavage of infected kidneys has proved of inestimable value.

L. P. PLAYER, M. D. (384 Post Street, San Francisco)—Doctor Dillon's very excellent contribution has opened up a practical method of pyeloureterography and of treatment for those patients in whom there exists a definite ureteral reflux, disregarding entirely any theories as to its etiology.

Dillon has utilized a pathological condition in effecting a method of treating pyelitis, ureteritis and, naturally, cystitis. By merely reversing the patient's normal standing position he has accomplished his purpose.

The urologist not infrequently encounters ureteral reflux plus infection and comes to realize how resistant to treatment the condition is; as ordinarily the amount of medicament employed is so small, or it leaks back to the bladder so easily, that the whole surface of the part involved is not reached.

Since hearing Dillon's paper I have been treating a patient with reflux by dilatation of the ureteral orifice with a Garceau catheter in an endeavor to increase its tonicity. Future x-rays employing my technique will determine the results.

Few, if any, decisions of the Supreme Court of the United States have been so universally and drastically condemned by the press of the country as that which by a 5 to 4 decision the court upholds a Volstead law which tells a doctor the maximum dosage of alcohol he may give his patients. The *Chicago Tribune*, for example, says:

"Will the Supreme Court's decision on medicinal alcohol prove to be the Dred Scott case of prohibition?"

"It might well be. Certainly no conscientious physician in charge of a serious case will waive his judgment of the need of his patient because of the dictate of a legislature or the opinion of a bench of judges. The prescribing for the needs of the sick is not a proper function either of a legislature or a court, and the law which attempts to put limits on the judgment of the physician is of a piece with the fanaticism which would determine any other scientific judgment by act of law. If a legislation directs that no public school shall teach that the earth is a sphere, if it directs that it shall teach that the earth is the center of the universe and that the sun moves above it from east to west, it would be no more out of its legitimate field than it is when it forbids a physician to prescribe more than an amount of alcohol which it fixes in its own wisdom.

"The Eighteenth Amendment was in plain language directed at and limited to prohibiting the use of alcoholic intoxicants as beverages. The decision of a bare majority of the Supreme Court now extends the prohibition to their use for medical purposes."

CHRONIC URETHRITIS AND SOME OF ITS CAUSES

By FRANCIS X. VOISARD, M. D., *Sacramento*

UNFORTUNATELY the patient is not always instructed how to use his injections; the attending physician, even in these days, is at fault.

No injection, no instrument whatsoever, should be admitted in the urethra except under rigid aseptic precautions; too frequently the patient is only told to use his syringe as he did before.

Even after the microscope shows no more gonococci, there is often a discharge, a morning drop at the meatus; examinations show numerous microorganisms of secondary infection. According to some writers, secondary infections are worse than the gonococcal infection in that they have more power of invading the tissues.

The gonococcus causes the most damage to the urinary tract. In health certain types of microorganisms are found near or about the genital passages; if the same passages have been damaged by the gonococcus, these organisms multiply to an enormous extent and gain hold on the congested mucosa, and from that time on they become pathological germs. This causes the continuation of the disease. At first they were inoffensive, lurking outside; now, with the help of a dirty syringe, they reach further up in the urethra, become established in the mucous glands and are responsible for a persistent gleet or chronic urethritis.

The faulty injections and irrigations, the too strong solutions used, help also the germs to destroy the resistance of the already diseased urethral canal.

Ossifying Hematoma—The six cases of hematoma presented by C. A. Stone, St. Louis (*Journal A. M. A.*), all followed a single trauma during athletic competition. In each case there was a hard blow, and then a hematoma which decreased in size and later ossified. They were all under the periosteum. This would make it appear that following the injury there was bleeding next to the bone. The periosteum was pushed up and gradually stretched into various shapes, in which position ossification took place. Each tumor was bone entirely covered by periosteum. Muscle was attached to the outside, but not once was it found inside the mass. This should be ample proof that it is not ossifying myositis. Ossification took place within two months after injury, and with one exception operation was not done until the process was complete. There was no recurrence. Good function returned promptly, and has been permanent. In two instances operation was not necessary, the condition being improved by heat and massage. Contrary to most of the literature, the diagnosis was not difficult. The patients were all young adults. In five instances the tumor occurred on the femur. This was also true with three anatomic specimens seen by Stone. There was one at the head of the tibia, and one at its lower end.

The force we have sought to substitute for the crumbling centers of authority is public opinion. That operates pretty effectively for the average, docile, comfort-loving individual, and for the more intelligent being so long as public opinion is undivided and so long as he does not imbibe the contempt for it which is always in the intellectual air. But let him get hold of the notion that public opinion is a rhymeless, reasonless, thoroughly treacherous old crone who commends his act in one milieu, ridicules it in another, and frowns on it in another, and he sends public opinion packing and begins to flounder for standards of his own.—Avis D. Carlson, *Harpers' Magazine*.

THE POTENCY DATE ON BIOLOGICS

By JOHN F. ANDERSON, M. D.

Director Squibb Biological Laboratories

FREQUENT inquiries are received at the Squibb Laboratories from pharmacists and physicians asking whether biologics, on which the potency date has passed, might not still be used with safety and confidence. This article is written with the idea of answering this same question as it arises in the minds of other representatives of the professions.

The potency date on biologics is defined in the law, as that "date beyond which the contents (of the packages) cannot be expected beyond reasonable doubt to yield their specific results." The federal regulations governing the fixing of the potency date on biological products have two main provisions. One pertains to those products which have a standard of potency which can be used at any time to establish definitely the potency and the therapeutic worth of the product. The other provision relates to those products for which there is no standard of potency, or no means of determining quickly by laboratory methods the true therapeutic worth of the product.

In the first class we have the antitoxins, such as diphtheria and tetanus, for which there are international standards of potency. For these products the Government regulations prescribe that for each twelve months' potency period there shall be added to the contents of the package a definite excess number of units to compensate for the loss in potency on aging, even though not kept under proper conditions. For example, a package of 10,000 units of diphtheria antitoxin, having a potency period of two years, must contain, when finished, at least a 30 per cent excess in the number of units, or a total of 13,000 units instead of only 10,000 units as stated on the label.

It is at once apparent, therefore, that a package of diphtheria antitoxin may be used any time within the potency period stamped thereon, and that the person to whom it is administered will get at least the number of units stated on the label. Should the contents of the package be used after the potency date has expired, it will still be found to be therapeutically effective, and at any time within a year thereafter probably will contain within 10 per cent of the original labeled potency.

All will recall that in the diphtheria epidemic at Nome, Alaska, the only diphtheria antitoxin that was at first available was outdated, but that its use saved many lives.

There are potency standards for other products than diphtheria and tetanus antitoxins, among which may be mentioned typhoid vaccine, diphtheria toxin for the Schick test, anti-meningococcal serum, anti-pneumococcal serum, anti-dysenteric serum, scarlet fever toxin, and scarlet fever antitoxin. However, the standards for all of these products, with the exception of the last, are used only for the purpose of insuring that when distributed the product will exert certain specific effects, as, for example, that the anti-pneumococcal serum will protect mice against a certain dose of a culture of pneumococci, using a standard serum for comparison; or that scarlet fever

toxin for the Dick test will cause a positive skin test in a person not immune to scarlet fever.

Usually but little excess volume is put into the containers of these last-mentioned products, for the reason that the methods of standardization do not permit of exact quantitative measurement.

These products, therefore, will show a gradual decrease in potency on aging, but this decrease will be much less when the products are kept properly refrigerated. Most of them may be used after the potency date has expired, if due allowance is made in the dosage for the decrease that occurs from aging. No exact information is available, however, as to how much this loss of potency is for each product.

Consequently, for those products for which no standards of potency have been established, the Government has fixed a definite potency period. These products, which include the various bacterial vaccines, except typhoid, anti-streptococcic serum, leucocyte extract, normal horse serum and similar preparations, probably still are therapeutically active after the potency date has been reached, if they are used in excess of the original dosage.

There is no potency standard for smallpox vaccine except that it must produce a good "take." Refrigeration is of the greatest importance to maintain the potency of this product. If kept at temperatures above 50 degrees F. the vaccine rapidly loses in potency. Smallpox vaccine should be kept, whenever possible, in a tin box in direct contact with the ice.

Rabies vaccine, Semple modification, being a killed virus, is in the same class as other products for which there is no potency standard. Rabies vaccine, Pasteur, however, has a short potency period and, except for the first seven doses, is only shipped from the laboratory for immediate use.

It will be apparent from this summary of the use of the potency date on biologics that the Government regulations have fixed the potency date for various products to insure "beyond reasonable doubt" the therapeutic worth of those products any time prior to that date. It is also clear that the antitoxins and most of the other biological products may be used after that time in cases of emergency, if proper allowance is made by increasing the dosage.

All will realize the importance of constant attention to stocks of biologics, always making sure that those with the shortest potency periods are used first.

Taenia Saginata in Gall Bladder—Edward B. Benedict, Boston, (*Journal A. M. A.*), reports a case in which a diagnosis of acute cholecystitis was made. At the operation 310 cm. (10 feet 2 inches) of *Taenia saginata* was removed from the gall bladder. About fifty years ago the man worked in a butcher's shop, and was accustomed while there to eat little pieces of raw beef—never any raw meat except beef. He has had no raw meat of any kind since leaving the butcher's shop about fifty years ago. For two years he has known that he had a tapeworm, passing segments about an inch and a half long, sometimes in the stools, sometimes separately. At one time, following medication advised by a physician, he passed a portion about 22 inches (56 cm.) long, and believed he had passed the whole worm; but after an interval of about three months he began passing segments again, and continued to do so. On the morning of operation he vomited a piece of tapeworm. Convalescence was entirely uneventful.

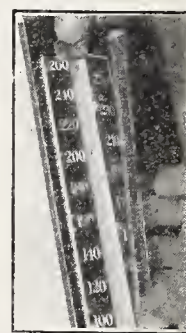
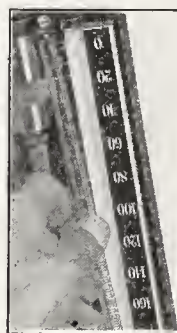
CLINICAL NOTES, CASE REPORTS AND NEW INSTRUMENTS

A NEW SPHYGMOMANOMETER

A new mercurial Sphygmomanometer in which several important objections to this type of instrument are overcome, is described by J. L. Wilson, M.D., and H. N. Eaton, A.M., in the November 20, 1926, issue of the *Journal of the A. M. A.*, page 1742. It has no cemented joints, and other common causes of mercury leakage and glass breakage are eliminated by the use of a simple, straight glass tube, held in a resilient mounting which enables the tube to withstand shocks which would otherwise shatter it. Severe tests have proved the sturdiness of the new construction.



The tube is so mounted that it can be removed (as for cleaning) by a simple pressure of the thumb, and replaced with equal facility. Thus, if the glass tube should break, the user can quickly insert a new one himself, without having to return the instrument to the manufacturer for repairs.



The insertion of a new tube does not impair the accuracy of the instrument. Each steel reservoir is an exact counterpart of the master steel reservoir against which each tube is individually calibrated. Therefore, the scale, which is separately engraved on each tube, is identically accurate for any instrument of this new type.

The design of the instrument (made by the W. A. Baum Company of New York) was developed along the lines of maximum service and convenience to the user without the sacrifice of simplicity and ruggedness, which experience has shown to be so desirable in instruments of this character.

A full account of the improved Baum Sphygmomanometer, which is also advertised in *CALIFORNIA AND WESTERN MEDICINE*, was published by Wilson and Eaton, *Journal A. M. A.*, November 20, 1926.

- BEDSIDE MEDICINE FOR BEDSIDE DOCTORS -

An open forum for brief discussions of the workaday problems of the bedside doctor. Suggestions for subjects and discussants invited. Useful extracts from letters will be published.

SHOULD DRUG ADDICTION BE A REPORTABLE DISEASE—GIVE REASONS

The Editor—The narcotic situation is a troublesome one to doctors, legislators, courts, police, and the public.

It is pre-eminently a medical problem, about which physicians have little or nothing to say. Narcotics are among our most important remedies, but it is getting constantly more difficult to use them legally. The question, ably discussed below, is likely to receive further agitation during the present session of the legislature, and the opinions of the prominent discussants here published may prove of use to those charged with the responsibility of making our laws.

✓ **Robert T. Legge ***—As a student of preventive medicine, I believe that the prevention of drug addiction should engage as much consideration in this field of endeavor as any infectious disease.

This evil which is attracting much unwise publicity, due to grossly unwarranted and exaggerated statements of an increasing menace to society, could be curtailed and reduced to a minimum by government supervision of drug traffic, the exception being only in the cases of those unfortunates suffering from incurable maladies.

Sociologists inform us, if statistics are dependable, that fully 95 per cent of drug addicts are the outcome of association with the underworld, or the channels leading directly to it. These individuals, mostly delinquents and social misfits, become addicted largely through association with habitués who find in the drug a panacea for the physical and mental ills which are the results of the lives they are leading. Psychiatrists and criminologists have always been aware that the individuals who will fully adopt narcotic habits are psychopaths, and, in a few instances, accidental cases.

Since the Harrison Narcotic Law went into effect there is no question that drug addiction has materially decreased, judging by statistical reports of population and amount of narcotics now manufactured. It is a well-known fact that drug peddlers and smugglers illicitly secure their supplies from our neighboring countries; a fact that the United States should take note of by an international regulation. The American Medical Association should define in the form of a law what constitutes in professional practice the legitimate use of narcotics. Such a law could be incorporated as an amendment to our state narcotic acts and probably abate an abuse that is at present practiced by careless and unscrupulous prac-

tioners. It may be possible to determine by careful research the possible minimum therapeutic use of morphia and cocaine, so as to curtail the manufacture and importation of these two drugs, heroin and other types of narcotics to be prohibited entirely.

It therefore seems to the writer that there can be no question as to the great value of a thorough investigation and report of the actual conditions existing, for the reasons here briefly stated:

1. As there are no reliable statistics as to the extent of the problem, the reporting of all addicts to the official health officers by physicians, nurses, social workers, peace officers, and institutions would contribute at least to determining the number of addicts.

2. It would afford opportunity to estimate the probable number of psychopathic hospitals, narcotic clinics, and farms for the curable cases, and the amount of institutional space for the confinement of the hopeless.

3. It would aid Congress to an intelligent appropriation of funds to each state for the relief of habitués under treatment, and to uphold the Federal Narcotic Acts.

4. It should contribute to the establishing in every municipal and county hospital a narcotic clinic for the curing and rehabilitation of the addict, and for the purpose of segregating the criminal and the hopeless cases, and to maintain a follow-up system so as to keep in touch with them after rehabilitation. These clinics will permit the patient to secure his narcotics while undergoing treatment at cost and will effect the elimination of the drug peddlers. As most addicts are suffering from other infirmities, a clinic can care for these during the narcotic therapy.

5. A knowledge of the victims of the narcotic habits will make it possible to obtain valuable information in regard to their sources of supply, and will aid the police in the detention of the criminals of both classes: the addicts and those who contribute to their debasement. A history as to age, race, sex, occupation, mentality, etc., would be of inestimable value and aid in educating the public in the problem, and would also produce an informed and intelligent public opinion.

✓ **George E. Ebricht ***—A law making drug addiction a reportable disease would, from a practi-

* **Robert T. Legge** (University of California Infirmary, Berkeley)—M. D. University of California, 1899. **Hospital connections:** University physician, University of California Infirmary. **Appointments:** Professor of Hygiene, University of California; Commissioner of Institutions, Alameda County; Major M. O. R. C. **Publications:** "Hygiene of Schools" (Donovan's School Architecture); "Occupational Diseases of Skin, Miners' Scoliosis, Industrial Medicine, etc." **Scientific organizations:** Alameda County Medical Society, C. M. A., A. M. A., Fellow American College of Surgeons, and member of many national medical and scientific societies. **Practice** limited to Consultation and Special Surgery.

* **George E. Ebricht** (719 Fitzhugh Building, San Francisco). M. D. Medical Department University of California, 1899. **Graduate study:** University of Munich, 1907; volunteer assistant in clinic of Prof. Frederick von Mueller. **Previous honors:** Formerly President California Academy of Medicine. **Present hospital connections:** Consulting physician San Francisco Hospital. **Scientific organizations:** San Francisco County Medical Society, C. M. A., A. M. A., California Academy of Medicine. **Present appointments:** Clinical Associate Professor of Medicine, Univ. Calif.; President California State Board of Health; member California State Council of Defense; member of commission appointed by Governor Stephens to make report to legislature on narcotic evil. **Practice** limited to Medicine since 1900. **Publications:** Approximately twenty articles on medical subjects.

cal standpoint, be impossible of enforcement, unless failure to report such cases was made punishable by quite a heavy fine. I do not believe that the medical profession should be subjected to such a penalty unless the expected results of the enforcement of such a regulation would be a solution of the problem, which is, upon its face, an impossibility.

For example, if all drug addicts in California, their name, sex, address, age, occupation and whatever other information may be desired, should be completely reported at once and a roster of 100 per cent of all such cases be in the hands of the authorities, the situation would then be just where it was on January 4, 1923, when a commission consisting of H. B. Meader, president California State Board of Pharmacy; Egerton Shore, member State Board of Control; John A. Reily, M. D., member Lunacy Commission; George B. McDougall, state architect Chief Division of Architecture; and George E. Ebricht, M. D., president California State Board of Health, made a report to Governor Stephens, too long to publish in full, but which concluded by recommending:

"First, that the Legislature of California memorialize the United States Congress to take such steps looking toward the control of the manufacture and importation of narcotic drugs and that treaties be entered into with foreign countries to prevent the smuggling of such drugs into this country.

"It is the unanimous opinion of the committee that opium and its derivatives properly used by patients in the hands of the medical profession have been a boon to the human race in the alleviation of suffering and pain and that such proper use of narcotics should in nowise be hampered or interfered with and that the medical profession may be trusted as a whole to properly safeguard those in their charge from abuse of these important and necessary remedies.

"The committee therefore respectfully recommends that the legislature consider the inefficacy of the infliction of fines and short jail sentences upon those convicted of smuggling and peddling narcotic drugs and consider the question of sufficiently long jail sentences as a deterring influence upon smuggling and the peddling of narcotics."

On account of the ease with which it may be accomplished, as compared with other forms of smuggling, opium smuggling will undoubtedly continue as long as a source of supply remains available. International action by the nation's most interested in the problem is necessary to accomplish a reduction of the supply at its source, and recently an effort has been made to bring it about. Advices from London dated June 11, 1926, are to the effect that India will cease to export opium except for medicinal uses in ten years. A loss of revenue to India is estimated to be \$7,200,000 annually, and to avoid too serious economic effect a gradual curtailment covering the ten years has been arranged.

Whatever the wisdom of this action may be remains to be seen. Certain it is that opium or its derivatives is one of the most necessary drugs in the physician's armamentarium. Any curtailment of the liberties of the medical profession in the use of opiates is, in my opinion, attended with far more

serious dangers than have heretofore been presented in the abuse of the drug. Already the manufacture of heroin has been stopped by law. An action which undoubtedly would not have been taken had it rested upon the vote of the practicing physicians and surgeons of the country.

I believe that the medical profession should be very slow in advocating a curtailment of their own liberties and should view with suspicion all acts on the part of others which might in any way jeopardize or hamper or restrict them in the execution of their professional judgment; or in the free use of those products of scientific labors and investigations which has marked the advance of civilization.

I can conceive that when opium and its derivatives are limited to "medical use" it will be necessary to define the term "medical use," and when that times comes it will be very interesting to know whether or not the great army of practicing physicians and surgeons have very much to say in shaping that definition. They are, after all, the only ones who have any right to voice the needs of those suffering from pain, and while no one with any spark of humanity can belittle the suffering and privation brought about by drug addiction, it is wise to consider carefully the cure of that ill that we have lest we unwittingly incur another far more serious one.

George Parrish*—It is a mooted question whether under our present laws and ordinances, rules and regulations, drug addiction should be made a reportable disease. If so, just what good would be accomplished?

There are many angles to consider—the first and almost the only good that can come from reporting under the present system is that it will give a fair estimate of the number of addicts in a community. Even these reports will not be accurate because of the illegal traffic or "bootlegging" which is being done. When a case is reported the Health Department can take no step toward bettering the addict's condition, for under present regulations the health officer has no authority. At present he is nothing more or less than a rubber stamp for the National Narcotic Board.

At the national convention, which was held at the Hague in 1912, the powers pledged themselves to control the drug evil and enact laws regulating the use of all habit-forming drugs, making illegal possession a penal offense; limiting the manufacture of morphin, cocain and their salts to authorized agents who shall register quantity, disposition, etc.; controlling the manufacture, receipt and disposition of the drugs to the hands of the user. The governments have not done what they pledged.

Under the Harrison Act there is no limit to manu-

* **George Parrish** (Department of Health, City of Los Angeles). M. D. Washington University, St. Louis, Mo., 1894. Graduate study: Nearly five years with St. Louis Health Department—various departments—1894-99; City Hospital; Female Hospital; Dispensary, etc.; two years in Berlin and Vienna. **Previous honors:** President City and County Medical Society, Portland, Ore., 1923; President Oregon State Health Officers' Association, 1923; Professor Public Health, University of Oregon Medical School, 1922-24; eight years Health Officer of Portland, Ore. **Scientific organizations:** Los Angeles County Medical Society, C. M. A., A. M. A. **Present appointments:** Health Commissioner, Los Angeles.

facturing for export. In 1920 alone 81,000 ounces of morphin and 108,056 ounces of cocain were exported and much of this was smuggled back into the United States of America. Regulations that are too severe have been the means of creating thousands of smugglers. The Harrison Narcotic Act in its present form offers the addict neither hope nor consolation. In depriving him of his drug it offers him neither a cure, a placebo, nor a substitute. In his agony and distress he is compelled to "bootleg."

Under these circumstances and present regulations no great good can come from compelling physicians to report these cases to the Health Department.

A great good could come from completely readjusted conditions.

1. The National Narcotic Board should consist of one member chosen from the United States Public Health Service, one from the American Medical Association, one from the Army and one from the American Public Health Association, and one layman, and a national figure.

2. This board should change completely or modify its present regulations.

3. As addicts are hopelessly ill, medical men on the board will understand their management much better than the layman.

4. A central clinic under the supervision of the Health Department, where the drug is given by the doctor himself. It should not be given to the victim to carry. He will return twice daily for his "shot." The patient should pay actual cost of drug. This system will give the victim his drug for approximately 8 cents per grain. Whereas he now pays \$1. Many a victim can pay 8 cents and remain honest. A dollar per grain makes thieves and murderers. This cut-price system will destroy the illegal traffic.

5. A card index system with history of each case should be kept.

6. Hospitalization, preferably on a nearby island, for not less than two years for all users who are otherwise physically O. K., where they could and should work, the product of their labor to be sold to help support the institution. The patient should receive 50 cents per day or \$365 for two years. He should upon release be given this at the rate of \$50 per month. Restored by labor of two years and good food to perfect health, with \$365 in his pocket, the majority will go straight.

7. The federal courts, not the local court, should sentence peddlers.

8. Under the above regulations I believe reporting of addicts should be compulsory, otherwise not.

William C. Hassler *—There is but one argument that can be used in favor of making drug addiction reportable, namely, the value such knowledge would be in educating the public to the dangers

resulting from the use of narcotic drugs. The public is impressed by figures, and responds quicker to any effort at correction when numbers face them in an appeal for relief than to preachment. Workers in public health preventive work can point to this fact in past campaigns for the establishment of sanatoria for the tuberculous, hospital beds and institutions for the treatment of cancer, heart disease or the establishment of prenatal and postnatal clinics, and numerous other efforts in preventive public health work.

If the reporting of drug addiction would bring about similar results it certainly would be not only worth while but would be given a whole-hearted support by every respectable physician in the practice of medicine.

If such reporting would be enforced and the figures obtained given to the public it would break the vicious circle that now exists and insure success of the effort many of us are making (in a small way though it be) to bring about a rehabilitation of these unfortunates.

It would also put out of a profitable business many individuals and institutions who do a thriving trade in phoney cures.

It would unquestionably result in the public demanding and bringing adequate federal and state aid to care for the hopeless and incurable as well as hospitals and convalescent farms for the hopeful cases.

It would eventually bring about legislation curbing the manufacture of narcotics and limit their release to the legitimate trade, to the actual needs of the medical practitioner. I believe the manufacture and distribution of all narcotics should be under the same supervision and control that obtains, say, for antitoxin or vaccine virus, excepting that the amount any licensed manufacturer may produce shall not exceed his quota allotted for any year.

It must not be forgotten that all users of narcotics are sick people and should be treated as such. The police have no place in the scheme of caring for and treatment of this class of unfortunates, excepting only insofar as apprehension for crimes committed or in the prosecution of the peddler, who if an addict (and 99 per cent of all peddlers are addicts) should first be subjected to a "so-called cure" and then serve a felony sentence in a state prison. Every state prison should have facilities to treat addicts; or these addicts and the hopelessly long term offenders who are addicts should be removed to a separate institution which undoubtedly it is contemplated to foster.

This would relieve the burden and necessity of supervision, which no matter how honestly prosecuted is hopelessly ineffective and results, because of contacts, in new victims being added to the ranks each year.

The arguments against making addiction disease reportable are equally as numerous as are the beneficial results which might follow if it were a law.

Outstanding is the question of the right of the state to interfere with relationship of doctor and patient. Addiction disease differs from communicable diseases. Are we not already overdoing the regulating of the doctor? No one questions the

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legality and legitimacy of the state's demand to record the births, deaths, and communicable diseases that occur in his practice including the social diseases, but each year adds some new restriction which if given time must finally include him among the dollar-a-year agents of the state.

Would the inclusion of addiction disease among the reportable diseases bring to light the thousands in the United States in the upper strata of society who use drugs any more than it now does those in this stratum who have either of the social diseases? If not, then it leaves us just where we are today, and we could still apply the remedies that experienced workers propose.

Few, if any, of the drug addicts are true patients of the practitioners of medicine. Those who are such are sufferers from some other complication that requires medical attention. All others may be grossly divided into two classes: the chronic hopelessly incurable addict who wouldn't be cured if he could and who is a permanent institutional case, and the other group who want to be cured but cannot under the existing order of things.

There need be no fear on the part of the medical profession or the police that if proper facilities are provided other than an asylum every one of the latter group will voluntarily proclaim himself and seek relief. At least that is our experience covering a period of five years' effort in this work.

I am not in favor of clinics to furnish drugs to the addict. This has proven a failure and holds no premium toward a cure. In effect it advertises an illegal practice, just as the restricted redlight district once did for prostitution.

I am not in favor of making it a reportable disease because such a law is not enforceable, and I doubt whether our courts of law would uphold it, but I am strongly in favor of hospitalization, convalescent farms or retreats, tightening up of the manufacture and limiting the supply, and imposing heavy prison sentences for vendors and peddlers, and a strong social service organization to aid and follow up the work of final rehabilitation.

Phosphates and Fatigue—During the World War astounding reports were circulated regarding the promotion of muscular activity and the prevention of fatigue in both man and animals through the administration of sodium phosphate. It was attempted during the war to increase the muscular efficiency of the German soldier by the oral administration of acid sodium phosphate in sub-laxative doses with alleged favorable results. Experiments conducted by the United States Public Health Service indicate that the ingestion of acid sodium phosphate does not increase muscular efficiency, but that there is a feeling of well-being experienced by many who ingest the salt. This probably depends on its stimulating action on the intestinal tract, and is due in part to increased elimination of alimentary waste. Acid sodium phosphate (sodium biphosphate) is more pleasant to take than other saline laxatives and is positive in its effects; those subjects who were constipated felt the beneficial effects of this laxative.—Journal A. M. A.

A prize has been offered for the best code of morals for co-eds. Perhaps it will occur to someone to enter the Ten Commandments in the competition.—Albany Knickerbocker Press.

Among the things now operated on the installment plan in America is polygamy.—Macon News.

EDITORIALS

THE INFLUENCE OF SYMBIOSIS ON MICRO-ORGANISMS: THE EVOLUTION OF PARASITISM

Speaking on this subject in Manila eighteen years ago (Philippine J. Science, April, 1908), Musgrave defined symbiosis as representing all phases of association between living organisms, including commensalism and true parasitism, in which either host or parasite is influenced by the other. That address closed with the prophecy that a promising field for research will be found in the study of causes and effects produced by the association of micro-organisms with each other and with their hosts in their environment of complex groups as well as individual symbiosis and the changing conditions in hosts.

Others before have indicated, and several since, that publication—particularly those interested in working out the manner in which animal parasites cause disease—have emphasized the possible group nature of tolerance by hosts and virulence among micro-organisms.

Interest in the problem has been revived recently by Aldo Castellani's able exposition of this subject, the careful study of which by present improved methods offers fruitful promise to patient investigators with a vision.

Reading and reflection on the possibilities inherent in this situation will open up vistas, fire the imagination, and energize the thoughtful investigator to further explore the subject. The action of group on group with group consequences seems quite as important to understand as is the action of an ultimate unit in complex and rarely constant environment.

May it not be that we are inclined to accept carrier, immunity, susceptibility, virulence, non-pathogenic, "balanced" this and that as explanations with too much complacency? What is this and that? What by breeding, what by environment and, over all, what by group association?

There is no reasonable doubt that symbiotic combinations between micro-organisms are responsible for many uninterpreted phenomena in the etiology and pathology of disease.

In animal and plant life from the highest to the lowest forms, we see evidence that certain associations and groupings contribute to virility and growth, while elements in other associations may damage a whole progressive movement quite as effectively as the broken link destroys the strength of the chain.

More light needs to be thrown on the metabolism of host and parasite. We have evidence that changes in symbiosis may produce changes in metabolism and in consequence changes in the pathogenicity of parasites and the susceptibility of hosts. This quite independent of the volume of influence.

That the virulence of pure strains of bacteria are decidedly influenced by the physics and chemistry

of their environment is too well known to warrant discussion. We also know that virulence is even more profoundly effected by the biology of environment, but our understanding of these processes is still far from satisfactory, and in increased knowledge lies great promise.

Life among all living things is perpetuated by reproduction; its extension and accomplishments are largely determined by environment in which association with other living things is quite as influential and needs further study among micro-organisms as it does in man. Friendly associations lead to groupings (symbiosis) which may be mutually helpful; many associations singly or in other groups are harmful and in this warfare with ever shifting fronts, life—microbic or mammalian—is the pawn.

A promising approach to the understanding of specific elements of lower animal life is through a better understanding first of the groups, symbiotic and detergent, in which they have their being and the nature of which surely is largely determinative of their possible danger to man. The most hopeful approach to further understanding of symbiosis appears to be through the study of mixed cultures of ameba and bacteria, this because of the ease with which the animal and vegetable elements may be distinguished under all circumstances and because this type of association seems to be an almost constant, if indeed not an essential one, to the perpetuation of the animal life in extra parasitic existence.

Baumgarten, thirty-six years ago (1890), suggested the probable co-operation between ameba and bacteria in the production of dysentery, and Janowski seven years later called attention to the probability that symbiotic bacteria may determine the parasitic and pathogenic possibilities of ameba in nature and that such specific symbiosis may be carried unbroken into the intestine or that it might be formed in the bowel.

Many years' work with amebas and amebiasis at the bedside, in the morgue and in the laboratory, led this editor inevitably to a similar conclusion and now, many years later, a review of the literature and that work but adds to the conviction of the soundness of these conclusions. Amebas in natural environment, in cultures or within the intestine, with rare exceptions lead parasitic lives in that they feed upon or in some other way sustain life at the expense of other micro-organisms or the living tissues of a host. This symbiosis, even when the parasites are in a mixed bacterial environment, is more or less specific, for certain of the bacteria and the specific character of the symbiosis may be changed in cultures or even largely eliminated.

The whole question of the evolution of parasitism is of intense interest and of great practical importance. It is within the bounds of possibility that the processes of parasitism even in its greatest selectiveness, as for example of tetanus toxin for the nervous system and certain trypanosomas for the cerebrospinal fluid, is evolutionary and there is evidence tending to support this hypothesis with more reason than is sometimes used in explanation of other phenomena having to do with biology and pathology.

In any event, the student will be rewarded for

his pains by studying what for want of a better term may be designated, the animal instincts shown by amebas in culture toward new elements introduced into their environment.

HEALTH MERGERS

The extensive creation of mergers, financial, industrial, commercial, and what-not, are among the most significant movements of recent years. The chief new or recent feature of the idea is the name merger, which suggests that a name may have something to do with the odor of a rose.

Another recent feature of the merger movement is its increasing application to matters of health, sociology, relief, charity, thereby introducing elements calculated to influence the very foundation of society and affect profoundly every individual.

The philosophy of mergers is the same, whatever the field of endeavor, and they are therefore worthy of serious study, particularly when they invade established human-service occupations.

The heart of any merger is centralized, more or less autocratic control, and while this may, and doubtless often does, insure advantages in material matters, it may not follow that it will be equally efficacious in dealing with those moral, social, and charitable attributes which are inherent in individuals, which are in a state of flux and may not be measured in material terms.

Unquestionably, well conceived and intelligently conducted mergers, whatever the field covered, may reduce waste, duplication of effort, and thereby increase the purchasing power of the dollar, stabilize and standardize production and change competition between individuals to group competition, or even replace competition by price-fixing methods. There are examples all about us in mergers of many classes and sizes that supply ample evidence of this fact: encouraging so far. However, when mergers enter the field of sociology, health, and other human services heretofore peculiarly personal, other and vastly more difficult problems arise. It may be possible even here to save dollars by standardizing the treatment of frailties, infirmities and shortcomings of mankind en masse and serving them through mergers also standardized; but what of the individual? Can we succeed in pouring into a common hopper operated by organized effort, service, and the blessed spirit of service, that is an inherent individualized quality of man, and grinding out stereotyped relief to meet the highly individual needs of others with safety?

"Health" mergers, to be more specific, are prominently to the fore, and they are proceeding apace from merger to supermerger—at least on paper and in the intent of sponsors. Extensively mergerized health, medical, social, and spiritual welfare, doubtless would simplify giving and serving and insure at least a steady income and regular hours to those who serve. It would reduce the matter of support to paying taxes or writing a check to the merger periodically—but would it not also tend to simplify life for the supplicants and beneficiaries? In this respect the results of the "dole" and the consequences of mergerized medicine in certain countries

is illuminating, and there are interesting lessons closer home that may be studied with profit.

It has been postulated and confirmed by experience that many human-service needs, the most crying ones, are too highly personal to be met by other than individual service, in the rendering of which both parties receive something that enriches life, encourages thrift, self-reliance, hope, faith, and charity. While these virtues are sublimated by individual contact or even by groups with common feelings and purposes, they may not blend well in the mills of mergers, and we might do well to carefully study the subject before we endorse current trends too wholeheartedly.

ALLEGED MEDICINAL VIRTUES OF CARBONATED BEVERAGES

The physiological and therapeutic actions of carbonated beverages have been recently discussed by J. Louis Neff of Brooklyn, New York, for the benefit of physicians. Lest there be some misconceptions from, or hasty actions on the basis of, this discussion it is worth while to consider the merits of the reasons advanced for the therapeutic effects claimed. It seems that Mr. Neff had no selfish motives in bringing this question before the medical profession, but it is quite apparent to the critical reader that he has left out of consideration much that the physician must know before he is justified in prescribing proposed therapeutic agents, and some things that will not bear scrutiny in the light of physiological and chemical researches. The more important items may be discussed in the order in which they appear in the article in question.

Regarding the alleged correction of acidity from the absorption of carbonic acid and its conversion to carbonates, the latter is only true, providing alkali-forming ions (sodium, etc.), are available for combining with the carbonic acid. Carbonic acid is a weak acid and cannot convert sodium chloride and similar salts ordinarily appearing in the alimentary tract into sodium bicarbonate. Hence, it would be absorbed as such. After absorption it probably would react with the alkaline sodium phosphate according to the following equation

$$\underbrace{\text{Na}_2\text{HPO}_4}_{\text{alkaline phosphate}} + \underbrace{\text{H}_2\text{CO}_3}_{\text{carbonic acid}} \rightleftharpoons \underbrace{\text{NaHCO}_3}_{\text{bicarbonate}} + \underbrace{\text{NaH}_2\text{PO}_4}_{\text{acid phosphate}}$$

which indicates that the reaction is reversible. The net result would be no more than an increase in the blood of the originally absorbed carbonic acid, which, however, dissociates into carbon dioxide and water, the gas being excreted by the lungs, and the water by the kidneys. Therefore, the only effect that could occur from the absorption of carbonic acid would be a temporary carbon dioxide acidosis, but this is of no great consequence as long as the respiratory center, lungs, and kidneys are functionally responsive in the usual manner. Obviously the presence of buffer salts prevents important changes in hydrogen ion concentration of the blood, a fact borne out by the negative influence on blood reaction after the injection of stronger acids than carbonic acid. Free alkali and protein (from food) in the alimen-

tary tract would probably bind the carbon dioxide, a part no doubt being absorbed as bicarbonate, which would temporarily increase the alkali reserve of the blood and then be promptly excreted in the usual manner.

Everyone will concur in the statement that most of the gas (carbon dioxide) is lost from the stomach by eructation after swallowing a carbonated beverage, and hence only a small and negligible proportion reaches the intestine, Mr. Neff's impression to the contrary notwithstanding. The effects of swallowing carbonic acid in the form of carbonated beverages are chiefly local and there is no absorption of the gas from the mouth and stomach. The effects consist of slight local irritation of the mucosa and this suggests a possible explanation of the eructation, which may occur from reflex stimulation of the stomach. In case the entire stomach should share in the increased motility, this might explain the somewhat more rapid passage (not absorption) of the stomach contents into the intestine. In addition, some slight stimulation of gastric secretion is conceivable, but has not been conclusively demonstrated. Unfortunately for the motility effects, Professor Carlson was able to show only an inhibition of hunger contractions and gastric motility in dogs, and in his fistula subject, who received carbonated drinks directly into the stomach.

In view of the probable small absorption of the gas into the system, there would be a negligible increase in respiration and ventilation of the lungs, and, therefore, in the alleged increased oxygen invoked for any curative effects. The effects visualized along this line are apparently based on the results of certain physiological experiments (rebreathing, etc.), which are not at all comparable with the drinking of carbonated beverages. Furthermore, the interpretations of these physiological experiments vary with the investigators. It certainly does not follow from experiments on rebreathing or inhaling carbon dioxide, in high concentrations, that carbonated beverages would be beneficial in poisoning from carbon monoxide, or in other asphyxial states, no matter what the reputation of drinking carbonated beverages among gas men may be. One naturally thinks of the more likely possibility of beneficial effects from reflex stimulation by the beverages than from any absorbed carbonic acid. Even if it be conceded that absorbed carbon dioxide results in improved ventilation and increased blood oxygen, the latter may not be needed, for it alone cannot restore injured blood and tissues, and other treatment may be imperatively needed. Moreover, the respiration soon adjusts the blood gases to the needs of the body. Finally, a persistent increase in oxygen may be detrimental, for overventilation results in respiratory stoppage and other symptoms.

Although some bacteriostatic action may be present in carbonated beverages, yet some bacteria and spores remain viable, and, therefore, there is not enough germicidal action to warrant the general recommendation that tourists, hikers, and campers supply themselves with these beverages in order to avoid the dangers of typhoid, etc. This advice is believed not to rest on the soundest judgment and is not to be compared with the common expedient of

boiling water for securing germicidal efficiency, and economy.

The generalization on fruit acids, as in ginger ale, claiming oxidation into carbonates and a consequent increase in alkalinity of the blood, and therapeutic indications in acidosis, fevers, toxemias, etc., is far too sweeping and based on erroneous conceptions of the fate of fruit acids. The fruit acids (citric, tartaric, malic, etc.) are oxidized to carbonic acid, which combines with any available alkali; and, therefore, the net result must be a deprivation of the alkali reserve of the body proper. This loss is accounted for partly by the presence of some excreted sodium bicarbonate (from the oxidized acids) and partly by the increased phosphates in the urine, a part of the CO_2 escaping by way of the lungs. The presence of these salts in the urine gives this excretion an alkaline reaction. The net result for the body proper can only be a tendency to acidosis. Therefore, the fruit acids are contraindicated in acidotic conditions. The easiest and simplest way to treat acidosis is by the administration of sodium bicarbonate, and not with carbonated beverages.

Whatever the virtues of pure ginger, or of substitutions or additions such as capsicum, in ginger ale, these are probably discounted by the unpleasant and biting irritation experienced by many, and by the inhibitory influences that such condiments have on gastric motility, hunger contractions, etc. Their effects may be purely mental, just as is now believed to be the case with many simple bitters. For some they appear to be mere placebos, somewhat comparable to the large variety of humble, domestic accessories of our dietary.

It is apparent from all this that the alleged medicinal virtues of carbonated beverages do not rest on a sound physiological basis, and properly speaking they cannot be considered in the category of therapeutic agents. Any virtues they may possess are accounted for by their content of water. It is difficult to imagine a single rational indication for ginger ale and related carbonated beverages. On the contrary, they have the disadvantages of possibly obscuring and preventing the diagnosis of disease, if used seriously as remedies, and they are unnecessarily expensive. They are not necessities, but are to be classed as luxuries. There is no good reason why they should be classed with foods, but some regulation of their sale may nevertheless be desirable, for a reasonable degree of cleanliness in their preparation, a knowledge of their bacterial content, and the elimination of harmful coloring agents, flavoring vehicles and aromatic constituents, etc., are some among other considerations that merit the attention of law enforcement authorities for the protection of the public.

Neff, J. L.: Long Island Med. J., 1926, 20: 349. "The Carbonated Beverage, Its Physiologic and Therapeutic Action."

Editorial: Long Island Med. J., 1926, 20: 377.

SPEAKING OF DOCTORS

The young, adequately prepared physician stands at the threshold of his career the most expensively educated and trained of all people. Even the oft-published figures of these investments are sobering

and if we add to them, as we should, the costs of those who fail during the course of their preparation, those who for one reason or another do not become producers after they are educated, and add costs of personal existence and reasonable income that might have been earned during the some eight to ten student years, the young doctor enters his work the most expensive investment now made to develop human competence.

This cost has been steadily increasing and it is not likely that it can be decreased, nor further increase prevented.

We have already reached a position where the average income of the physicians of the United States is less than 6 per cent interest on a fair calculation of the amount invested in their education; this without taking into consideration the extra hazards incident to the vocation and without providing a sinking fund to care for these hazards, to say nothing of provisions for recreation and further study.

While we may not be able to reduce the investment required to produce a doctor, we can and should do things that will increase the income on the investment without passing the increase on to others, including the individual patient or public we serve. By far the most important step in this direction, from the point of view of medical economics, would be a rearrangement of the services of the growing number of technical assistants to doctors so that they would work more as the assistants they are trained to be and thereby extend and make more effective the service of the physician. This we could do if we pleased, as it is being done by many individual physicians and groups of physicians. To accomplish it on a larger scale necessitates the development of mass responsibility, expressing itself through well-conceived organization with definite and positive purposes. Our failure to move forward with the times in this respect is responsible for the handicap under which we are struggling today.

There is little reason to expect correction of this situation by the present generation of physicians, and until the idealism of our methods of preparing young physicians is leavened by a little more intelligent information of the practical affairs of life, there is not much apparent reason for hope for oncoming generations of followers of our beloved calling. However, we can't see around the next corner, and desperate needs usually find men to meet them.

The human race is growing sick of itself. That this sickness is feverish, that we demand more changes, more faces, more whirling contacts in city crowds, is only a symptom of the disease. It is good to leave Main Street now and then to sharpen home-keeping wits, and it is true that frequent association breeds intelligence, yet the whirl of consecutive and diverse impressions in which modern man is daily spun is more than can be endured without morbid reaction. We have multiplied mental contacts until they have become unaccountable.—The Saturday Review of Literature.

Ovarian Residue Soluble Extract (P. D. & Co.)—A solution of an extract of desiccated beef and hog ovaries, from which the corpora lutea have been removed, in physiological solution of sodium chloride, each cc. containing 0.04 gm. of soluble extract. The actions and uses of ovary preparations are discussed in New and Non-official Remedies, 1926, p. 269. The product is marketed in 1 cc. ampules. Parke, Davis & Co., Detroit.

MEDICAL ECONOMICS AND PUBLIC HEALTH

Doctor Langley Porter of San Francisco, who has been in Europe for the past two years, sends us clippings of a debate before the Hunterian Society of England recently on "Medicine and the Press."

Lord Riddell, speaking as a newspaper publisher, made the charge that, while the big fish in the medical profession could do very much as they liked, the smaller ones, either through fear, threats, or force, were caught in the net. The whole question of advertising required to be reconsidered. He had sympathy with the objects in view, but could not see why it should be illegal for a doctor to write a newspaper article when he could write exactly the same matter in a 5s. book.

Sir Humphrey Rolleston, speaking for the medical profession, said that everyone agreed that the public should be well educated in the laws of health, *though the less healthy people knew about disease the better for them*. Any danger which might result from reading about symptoms of disease would be obviated by everyone undergoing a thorough overhaul by a doctor once a year. The main question on which the press and the medical profession differed was whether or not articles should be signed by medical men in practice. Medical men who signed such articles inevitably gained financially, but there could be no objection to men not in practice or who held official positions issuing warnings about disease. Articles on general hygiene were good, but not on specific cures.

Mr. W. J. Evans, late editor of the *Evening News*, said he could not see any harm in signed articles telling people what they knew already—[laughter]—and there was this to be said for the doctors that they did write their own articles. [Laughter.]

Dr. Graham Little, M. P., asserted that much of the stuff which the newspapers printed as medical information was mere piffle, and there was a great danger in the premature publication of unsubstantiated scientific knowledge. It was a bad thing for the public to be always thinking about their health. It made them morbid, and more patent medicines were consumed in this country than in any other country in the world.

Thus the merry war goes on. Physicians who can make the subjects of health, hygiene and medicine attractive enough to the average reader to make them of much value can make more money with the pen than they can with scalpel and pills. The chief trouble is, that one can count on the fingers of the two hands all the educated ethical doctors of medicine who have made creditable names for themselves in popular medical writing. On the other hand, such attempts have blasted, and are blasting, reputations by the hundred.

The health record of the industrial populations of the United States and Canada during the first nine months of 1926, while by no means unsatisfactory, has not been quite up to the standard of recent years. The fact is that 1926 had a bad beginning, as the result of the widespread prevalence of influenza and pneumonia during the early months. This situation itself appears to have cleared up, since, up to the middle of October, there have been no particular indications of an autumn recrudescence of influenza or influenzal pneumonia. As is invariably the case when we have above-average prevalence of mortality from these diseases, there has been, this year, a rise in the death rate from organic heart disease and chronic nephritis. Other factors which have operated unfavorably this year have been outbreaks of measles and whooping cough. These bid fair to be reflected in the highest death rates in a decade. We have also had smaller increases in the mortality from cancer and diabetes.—Statistical Bull., Metropolitan Life Ins. Co.

Backward, Turn Backward O Time in Your Flight
—Marco Polo, says *The Nation's Health* in writing of

the natives of India in the latter part of the thirteenth century, said:

"They drink out of a particular kind of vessel, and each individual from his own, never making use of the drinking pot of another person. When they drink they do not apply the vessel to the mouth, but hold it above the head and pour the liquor into the mouth, not suffering the vessel on any account to touch the lips. In giving drink to a stranger, they do not hand their vessel to him, but, if he is not provided with one of his own, pour the wine or other liquor into his hands, from which he drinks it, as from a cup."

In a recent survey of the health of children preparing to enter school throughout the state, it was found that every 100 children were suffering from 260 defects, mostly of minor character that could be corrected, and that approximately 75 per cent of all the children were in need of medical attention.—U. C. Clip Sheet.

We feel that the more than 4000 members of the California Medical Association who own and publish CALIFORNIA AND WESTERN MEDICINE are entitled to the information that Armour & Company have withdrawn their advertising co-operation with us, as well as all the other medical journals owned and published by state medical associations.

From time to time one hears complaints regarding the work of county and other public health nurses. These complaints come chiefly from members of the medical profession in various parts of the state and generally relate to the overzealousness of the county or city nurse in the matter of making provisional diagnoses and sending patients out of their own localities to state or other public institutions for treatment when, in many instances, all necessary treatment for such patients could be secured at home. In some instances the county nurse seems to feel that she is working for the state or other outside institutions. Just how and where so many public health nurses become imbued with this idea does not at present appear.

The county nurse is employed by and receives her salary from the county board of the county in which she contracts to work. The remedy for any such unwarranted assumption of authority or ability on her part lies in a direct appeal to the county board by members of the local medical fraternity. For the purpose of investigating and following to a conclusion any alleged unwarranted assumption of responsibility on her part and also for the purpose of assisting her in the solution of the different problems that arise almost daily in her work with the public, a standing "Public Health Committee" appointed by the county medical society would provide a group of medical men to whom she could go at any time with her problems and whose decisions and actions would have the authority and sanction of the organized medical profession of the community. Allowed to run wild and uncontrolled, she may become the medium through which much that is disorganizing and much that tends toward the establishment of that most unfortunate condition—*state medicine*—may be made to loom large upon our horizon.

Here again is an instance in which the local or county medical society should assume leadership in local medical matters. The appointment of such a committee as that above suggested should be the means of bringing the laity and the medical profession into a closer sympathy and understanding of medical matters in their respective communities.—Joseph F. Smith, Wisconsin M. J.

The time has come for a change in the relation of science to society. If indeed this knowledge is sound, if it represents reality and mirrors truly the circumstances and conditions of life, then it must enter into life and become a part of life. While it is important that knowledge be applied and made useful, it is vastly more important that the method by which this resource is gained be made the habit of thought in daily living.—C. E. McClung, *Science*, December 10, 1926.

Virtue consists, not in abstaining from vice, but in not desiring it.—Bernard Shaw.

- The MONTH with the EDITOR -

Notes, reflections, comment upon medical and health news in both the scientific and public press, briefs of sorts from here, there and everywhere.

Collected Reprints from the George Williams Hooper Foundation for Medical Research (Vol. X, 1925-26), maintains the high standards of excellence set in former volumes.

No more important work is being done anywhere than that produced in this splendid institution. It is too bad that the normal growth and influence of the Foundation must be limited by lack of funds.

"In our last long rest all that we can keep is what we have given away." This quotation on the front cover of the Twenty-Third Annual Report of the Barlow Sanatorium Association (1926) is indicative of the splendid spirit of service that has characterized this remarkable institution for more than twenty years.

The Sanatorium is for tuberculous patients of Los Angeles County.

Dr. Ernest S. Bishop, known around the world for his work in narcotic addiction, died at his summer home in Blandford, Massachusetts, Monday, November 15.

Doctor Bishop, who was born in Pawtucket, Rhode Island, November 29, 1876, was graduated from Brown University, where he won recognition as an athlete in 1899, and from Cornell Medical School in 1908. From the medical school he went to Bellevue Hospital as an intern, remaining there as resident physician until 1912.

Doctor Bishop was clinical professor of medicine in the New York Polyclinic Medical School, visiting physician to Saint Joseph's Hospital, and consulting physician to Saint Mark's. During the war he served in the army as a diagnostician. He was a Fellow of the American College of Physicians, of the New York Academy of Medicine, and the American Public Health Association, and associate editor of the *American Medicine*. His publications include "The Narcotic Drug Problem," which has run into several editions.

At a time when science is proclaimed the chief reliance of organized society in securing its perpetuation; when through its ministrations human life is materially lengthened, made more effective and enjoyable; when the uncertainties of existence and the terrors of the unknown are yearly being reduced in significance, then we witness the paradox of vicious and unreasoning assaults upon the methods and conclusions of science by legislative enactments to cripple its progress and to limit its teaching.—C. G. McClung, *Science*, December 10, 1926.

"Abrams' College Proves Thin Air." Under these headlines the San Francisco *Chronicle* tells the pathetic story of "the late Dr. Albert Abrams' dreams of a college of 'electronic medicine,' housed in a ten-story building."

According to the *Chronicle's* story this grandiose dream "has crystallized into an actuality of \$250 worth of medical books and \$1070 worth of instruments. The eccentric doctor, who attained nation-wide notice with his startling theories of electronic diagnosis and treatment of disease, left one of the longest wills ever filed locally. He believed he was creating an ironclad trust fund for his projected college, but an inheritance tax report filed in the Superior Court yesterday by Richard F. Mogan, State Inheritance Tax Appraiser, is graphic evidence of failure.

"Receipts from the rental of the 'electronic' machines he invented for the treatment of disease, a fertile source of income during the doctor's life, decreased to almost nothing after his death three years ago."

There was nothing unique in Abrams' methods. In a general way he followed the methods of Perkins with

his tractors and Bishop Berkeley with his tar water. They all succeeded in getting the most effective part of their advertising free through the reading columns of the public press. The most potent force in bringing this about was in challenging the medical profession to disprove their claims. Such challenges have been frequently made by other cure-all promoters, but not many of them have succeeded in inducing great medical organizations to pay any attention to the challenges and in consequence they have had to buy their space in the advertising columns of the public press.

There is no doubt but that had Abrams had to pay current rates for the advertising the newspapers gave him freely during the few years of his lurid career, the \$771,181 estate he left would have absorbed into the advertising income of newspapers.

Abramses, Perkinses, and Bishop Berkeleys are still numerous, but managers of great newspapers are growing wiser, and more and more of these gentry are being referred to the advertising managers of papers, who demand checks to pay for publishing their stories; and in growing numbers of great metropolitan dailies space is not even for sale to traffickers in health for a price.

Studies of the relation between the character, amount and distribution of hair and idiocy have been carried on from time to time. Recently the subject has had quite an airing in the public press abroad, due largely to a report at the first Malcolm Morris Memorial lecture at the Royal Society of Medicine of Great Britain by Sir James Crichton-Browne on a conjoint investigation undertaken by him and Sir Malcolm Morris a number of years ago.

Accepting the then approved doctrine that the cerebro-spinal nervous system and the skin are both developed from the outer layer of the embryo, it occurred to Creighton-Browne and Morris that any arrest of development in one might be accompanied by an arrest of development in the other. So they decided to inquire into skin conditions in the mentally defective.

They examined 554 congenital idiots, and found in them characteristic changes in the skin, hair, and nails. The departures from the normal were of various kinds, including external thinness and fineness of the skin, roughness, or fish-skin, as it is called, and special diseases.

In a remarkable number of persons a growth of fine downy, hair, beginning at the nape of the neck, and running down the back, between the scapulae, something in the nature of a mane, had been noted.

We are only beginning to understand that there is bound up in the quality, quantity and distribution of the hair stories of untold value in the interpretation of abnormal phenomena, but the significance of the findings are still exceedingly obscure. Further studies in endocrinology and particularly of lymphoid tissues offers great promise of enlightenment.

One thousand and eighty-four children were given physical examinations in the nine child welfare centers of the Department of Public Health during the month of October, according to William C. Hassler, City Health Officer of San Francisco. Four hundred and ninety-four of these were children under 6 months of age; 220 were between 6 months and 1 year; and 370 between 1 and 6 years of age.

We wonder if some of these should not have paid fees to private physicians for their medical service. There are many competent doctors in San Francisco and elsewhere who are having a harder time earning enough to house, feed and clothe their own families because of govern-

ment competition in the practice of medicine among those who are well able to pay.

Recent investigations have traced the origin of the Los Angeles County Medical Association back to 1850, at which early date a published fee schedule was in existence.

Now that the Supreme Court of the United States has decided by a 5 to 4 vote the maximum amount of alcohol a doctor may legally give to his pneumonia patient, why not have that learned body decide the maximum dose of antitoxin a doctor may give his diphtheria patient or the conditions under which he may legally operate for appendicitis?

Is the time coming when Congress and the Supreme Court, possibly advised by the Department of Labor or the Children's Bureau, may reduce the practice of medicine to a legalized formula?

The day of the nurse trained solely in the work of tending to the comfort of a patient is over, and her place is being taken by scientifically trained women capable of performing many tasks formerly taking the time of physicians, according to Mary May Pickering, R. N., director of the University of California training school for nurses.—U. C. Clip Sheet.

Is it possible that this is coming? If so, it's about time for medical students to study for some other calling.

Human kind is slow to learn; what it acquires in one generation it loses in the next. Great truths evolving from everyday experience make but difficult way into the consciousness of the average person and eventuate but seldom in guided action. Nations rise and fall into decay and others follow the same course to the same end without profit from the evil example. For every generation and every individual, constant repetitions of the most elementary truths are required to save them from destructive courses.—*Science*, December 10, 1926.

A group of 150 physicians are planning to build another hotel-hospital to cost \$4,000,000. The hotel-hospital idea is developing rapidly in many urban centers. The idea is sound and it is likely to travel far.

Ambitious advertising optometrists in certain urban centers are adding statements like this to their newspaper advertisements: "Eye, ear, and throat specialists always in attendance to advise when medical attention is necessary."

Thus another link is being forged in the ever lengthening chain of that kind of medicine which makes of the doctor the "hired man" of business.

Reminiscences by George Henry Fox (New York Med. Life Press) is a delightful book, containing as it does many sidelights on medical history, as well as more direct information about the lives of a family of doctors. Every physician will find much that is amusing and culturally beneficial in a perusal of these reminiscences, and the many friends and students of Doctor Fox will find more intimate and significant things to appreciate and enjoy.

Syphilis and Human Milk—G. Schwarz (Muench. med. Wochenschrift, Jg. 72, No. 45, p. 1916)—The author examined the milk of two syphilitic women during the latter part of their lying-in period, and was able to establish a positive Wassermann reaction in both cases. It is suggested that it would be very interesting to examine the milk of a comprehensive series of syphilitic patients during this period and also to inquire into the question of the infectiousness of human milk in general, since opinion concerning these questions differs considerably.—Abstract Service, H. A. Metz Laboratories.

CALIFORNIA MEDICAL ASSOCIATION

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ALAMEDA COUNTY

Tribute to Doctor Nusbaumer—The regular meeting of the Alameda County Medical Association was held Monday evening, December 20, 1926, at the Ethel Moore Memorial Building. The program was prepared and presented by the staff of Merritt Hospital, after which Dr. E. N. Ewer read a tribute to our late secretary, Dr. Pauline S. Nusbaumer:

"Once more the hand of death has fallen heavily upon this Association in the passing of Pauline S. Nusbaumer.

"Doctor Nusbaumer was born in Mount Eden, Alameda County, October 15, 1858, and several of our members present this evening to do her honor knew her as a school



PAULINE S. NUSBAUMER
1858-1926

girl in Pleasanton. They have told of their pride in the privilege of her friendship during the many years in which she developed from girlhood, spent in the healthful environment of a California ranch, to the influential position she occupied in the medical profession of this state.

"How influential she was is well expressed in these words of one of our former presidents: 'In the fifteen years in which I have known her, I have come to regard her as the greatest single influence in Oakland in the way of unifying the local medical profession and furthering the practice of ethical, scientific medicine.'

"She was graduated from the Women's Medical College of Philadelphia in the year 1900 and immediately began the practice of general medicine in Oakland. Her outstanding personality won her the respect and love of all who were fortunate enough to come within the sphere of her gentle influence. Her professional success was an early response not only to personality, but to real ability.

"After a few years in general practice she became inter-

ested in the laboratory side of medicine, and for a time maintained the only diagnostic laboratory in Oakland. She was soon made city bacteriologist, in which position her efficiency was put to the severest test during the threatened epidemic of bubonic plague in 1907. So conscientious and thorough was her work during this period, that her technical examinations were correct in each instance. They were reviewed and invariably confirmed by the National Public Health Service on watch to prevent the spread of this formidable disease. During the preceding year, when the Health Department was occupied with the extraordinary conditions thrust upon it by the establishment of the refugee camps after the earthquake and fire disaster in San Francisco, her work was of the highest quality and importance.

"Her usefulness to organized medicine was recognized by her repeated election to the secretaryship of this her local society, in her yearly attendance upon the meetings of the California Medical Association where she was usually a delegate and where her importance was always felt, and finally in her selection in 1923 to the office of president of the Alameda County Medical Association. Under her presidency the excellence of the programs and the social features she introduced resulted in a marked increase in membership and attendance.

"In addition to her medical association activities she was a member of many charitable organizations and civic societies, to which she gave of her energies without stint and usually in the capacity of a leader.

"During her busy life, active to within a few weeks of the end, she gathered about her a host of devoted friends from all walks of life, and they will long cherish her memory for the woman she was, sweet and loving of disposition, kindly of heart, charitable and, above all, the sympathetic physician. If she had faults we know them not."

RESOLUTIONS

Whereas, Our beloved friend and co-worker, Pauline S. Nusbaumer, has been removed by death from her earthly activities and triumphs; and

Whereas, She occupied the position of president of the Alameda County Medical Association during the year 1923; and

Whereas, At the time of her passing she was secretary and treasurer of our Association, conducting the office with dignity, kindness, and excellent judgment to the admiration of all; and

Whereas, Many years of her life were spent in the self-sacrificing duties of bacteriologist in the Public Health Service of Oakland; and

Whereas, She represented, during a long lifetime, the best in the glorious achievements of medical professional womanhood; and

Whereas, In addition to her devotion to her profession she was a valuable worker in all worthy movements for civic uplift, therefore be it

Resolved, That we, the Alameda County Medical Association, in sorrowing conclave, do hereby lament our great loss, and manifest our deep regard and affection for her memory; also be it

Resolved, That we hereby extend to her bereaved family our heartfelt sympathy; and be it further

Resolved, That these resolutions be inscribed in the minutes of this meeting.

Memorial Service for Doctor Buteau—On Thursday, November 18, the staff of Samuel Merritt Hospital gathered in the rooms of Dr. William A. Clark at the Hotel Oakland for the purpose of holding a memorial service for the late Dr. Samuel H. Buteau, deceased president of the Board of Trustees of the institution.

Several organ selections were rendered by Dr. W. A. Clark.

Opening the meeting for the staff, Mr. William B. Bosley spoke at some length regarding the unfailing devotion of Doctor Buteau in the interests of Samuel Merritt Hospital. He recounted many instances of time spent in careful thought and his unfailing ability in carrying the institution through many critical periods.

Following Mr. Bosley, Judge Everett Brown spoke feelingly of Doctor Buteau's intense patriotism and his unfailing interest in all civic affairs, and on behalf of the

family presented the staff with a picture of Doctor Buteau done by his niece, Bernita Lundy.

Dr. Hubert N. Rowell delivered an eloquent eulogy, and in conclusion the following resolutions were read by Dr. E. Spence DePuy for the staff, and adopted by a rising vote:

IN MEMORIAM

The members of the staff of Samuel Merritt Hospital, gathered in special session for the purpose of holding a memorial service for our friend and late colleague and comrade, Dr. Samuel H. Buteau, desiring to give formal though inadequate expression to our sentiments of respect, esteem and affection, feel impelled to state our appraisal of him was not only a really great physician, but in all respects a truly splendid man.

Men are regarded and loved partly for what they are and what they stand for, and partly for what they are not and what they stand against.

Samuel Buteau stood for righteousness, courage and tasks well done. He stood for lofty ideals, for poetic fancy and all that is fine and true. He stood for high emprise and lived the things he taught, and other than this no man can do more.

A practical man, he appreciated the necessity of compromise with honest differences, yet never did he descend to those ignoble agreements which require the substitution of motives of a baser kind.

Part and parcel of our friend was his exemplary pride in the institution he was so great a factor in establishing upon its secure foundation; and even more in the men who, through precept and example, he stimulated to exert themselves worthily, and to whom he imparted the results of his ripe experience and tireless search for the means of accomplishing better surgery.

Samuel Buteau stood ruggedly against selfishness, self-seeking and self-aggrandizement. Modest to a degree, out of the nobility of his soul he frequently shared with others honors and praise that lesser men would have captured for their own.

How really great was the character of this man, our friend, we are still too close to his living presence to appreciate. Only time will show us how wise a counselor we have lost; only time will show us how sadly we shall miss his strength. The quiet, heartening encouragement that in times past we have taken so much a matter of course we shall now find ourselves without, and in vain shall we listen for the words that took the sting out of failure and so kindly soothed our ruffled hurts. He encouraged us when despondency or discouragement beset us; he showed us how not to feel chagrined at some failure to achieve a hope longed for, and heartened us when we failed in the accomplishment of a purpose too great for our small abilities.

Big with the thoughts that little men may never feel, the dreams that a practical man may vision, all the days of his life he must have known the irksome and hampering limitations which flesh puts upon us all. With patience he allowed a frail habitation to possess his soul, and now that soul, that man himself, freed of the encumbrance of a shell that can never be the permanent clog of the really great, has been released to a freedom for service where time, space and mundane handicaps lay no burden upon the self that reaches toward the things that may not be accomplished on this earthly plane.

Selfish in our grief at the passing of a friend upon whom we had learned to lean, yet should we not let such a feeling blur our minds to the fact that the loss is ours, not his, and that his death ought but to prove to us that through merit he has earned a release for which we, less fortunate, must await our time with patience, and envy not him whose liberation has come as a reward of faithful, honest service.

Resolved, Therefore, that we, the members of the staff of Samuel Merritt Hospital and the friends of our departed leader, regret the loss we have sustained and hope that each of us may profit by recollection of the example of manliness, courage and lofty ideals of our absent friend, Samuel H. Buteau, surgeon, guide, man and friend.

Resolved, Further, that a copy of these resolutions be sent to the family of our late companion; and

Resolved, Further, that a copy of these resolutions be

spread upon the minutes of the staff of Samuel Merritt Hospital.

November 23—The trustees of Samuel Merritt Hospital met in special session to appoint a new trustee to fill the vacancy caused by the death of Dr. S. H. Buteau. Desiring to have as one of their number one whose qualifications would be of greatest value to the hospital, the trustees sought an expression of opinion from the members of the staff. As a result of this conference, Dr. George G. Reinle, chief of the urological department, was selected to be a member of the Board of Trustees and the one charged with active responsibility for the hospital's smooth functioning.

Dr. O. D. Hamlin, president of the staff of Providence Hospital, sustained a fracture of the lower end of the femur and is now patiently waiting for nature to repair the injury.



CONTRA COSTA COUNTY

Contra Costa County Medical Society—The annual banquet of the Contra Costa County Medical Society was a very delightful affair this year, being held on December 4 at the Hotel Oakland.

Afterward the Society enjoyed seats at the Fulton Theater.

Those present at the banquet were Dr. and Mrs. William A. Rowell, Dr. and Mrs. J. M. McCullough of Crockett; Dr. and Mrs. S. N. Weil of Selby; Dr. and Mrs. P. C. Campbell, Dr. and Mrs. H. L. Carpenter, Dr. and Mrs. W. E. Cunningham, Dr. and Mrs. L. St. John Hely, Dr. M. Deninger Keser, Dr. Rosa Powell, Dr. U. S. Abbott, Dr. A. Hedges, Mrs. Moro Corvine, Mrs. J. O. Tedman, R. N., Miss Agnes Driscoll, R. N., Mrs. Freda Viteline, R. N., of Richmond; Dr. and Mrs. M. J. Fernandez of Pinole.

S. N. WEIL, *Secretary*.



KERN COUNTY

Kern County Medical Society—The Kern County Medical Society held its regular November meeting, November 18, 1926, at the Kern General Hospital. It was strictly a business meeting followed by a light banquet.

The following officers were unanimously elected to the various offices: L. C. McLain, president; H. W. Bell, vice-president; R. M. Jones, secretary-treasurer; F. A. Hamlin, delegate; Joe Smith, alternate; Keith S. McKee, new member on Board of Censors.

L. C. McLAIN, *Secretary*.



SACRAMENTO COUNTY

Sacramento County for Medical Improvement—There was an attendance of thirty-two at the November meeting, held in the Gold Room of the Hotel Sacramento on the evening of the 16th. C. E. Schoff presided. The minutes of the October meeting were read and approved.

CASE REPORTS

Gundrum reported the interesting occurrence of a mesoblastic tumor, an epiblastic tumor, and a lymphoblastoma in a woman of forty-five within three years of time.

Schoff told of the finding of numbers of spirochetes in a secondary syphilitic lesion, but months after intensive arsenic treatment.

Bittner and Gundrum reviewed the history of seven flu cases, where one contact developed an acute encephalitis. Three of the simple flu cases could be traced as contacts of the encephalitis case, and yet none showed other than simple influenzal symptoms.

Hall reviewed the disastrous results when surgical interference is adopted in conditions where cellulitis exists.

Robert A. Peers of Colfax presented the paper of the evening, and chose for his subject some personal experiences with pneumothorax. A resumé of his paper follows:

Doctor Peers commenced his paper by stating that after passing through a stage of overenthusiasm and a second stage of pessimism, pneumothorax now had found its proper place where its real value is understood and where its merits and demerits, its indications and contraindications,

its benefits and its dangers are understood and appreciated.

He briefly explained the type of apparatus used in lung compressions and the reasons for the use of the blunt and the sharp needle.

He discussed the indications for the use of pneumothorax and stated that personally, while enthusiastic about this procedure, he was still very conservative in commencing the operation. This conservatism was due to two things: first, the impossibility of predicting in advance which patients would do well without the operation and, second, the length of time the lung compressions must be continued. The difficulty of securing refills, except in the larger centers, made it essential that no case should be submitted to pneumothorax except where absolutely necessary.

It was very important, the doctor believed, that all pneumothorax patients should be controlled by means of x-ray films and fluoroscopic screening, as by this means one could recognize instantly and clearly the amount of compression, the presence and character of adhesions, the presence and absence of pleural effusions, and at the same time keep the noncompressed lung under observation. The types of cases, suitable for pneumothorax are: (1) Progressive cases, which fail to respond to ordinary methods of treatment, particularly but not necessarily those cases in which the other lung is relatively free from disease. (2) Stationary cases, which have improved under ordinary regimen, but which have apparently reached a standstill. This group has to be more carefully selected than Group No. 1. (3) Hemorrhage cases; where there is active and uncontrollable bleeding. (4) Pleurisy with effusion. The doctor differentiated between those cases where pneumothorax is being used and where pleurisy develops in the contralateral lung and between nonpneumothorax patients. In the latter group, where the effusion develops on the good side, pneumothorax is not commenced, although 100 or 200 cc. of air may be introduced following aspiration in order to more clearly outline on the fluoroscopic screen the amount of fluid remaining in the chest following aspiration. Where, however, pleural effusion occurs in the more involved lung it is his practice to replace the amount of fluid with air and, if circumstances warrant, continue the case as one of ordinary pneumothorax. (5) Lung abscess: The doctor reported that his experience with the use of pneumothorax in case of lung abscess had been uniformly unsuccessful, and that now, in spite of the temptation to treat these cases by pneumothorax, he invariably refers them to a surgeon.

He also described three cases where bilateral pneumothorax was used.

The matter of dosage and of interval between doses was next discussed; the principal point made being that in these matters one, to be successful, must individualize strictly. That by means of co-operation between the physician and the patient, and by careful observation of the manometer readings, the x-ray findings and the patient's symptoms, one is enabled to estimate the proper dose and proper interval for each patient. The doctor, however, gave several general rules which he has followed in his practice.

The matter of the occurrence of effusion was discussed and the proper procedure to follow was outlined.

The statistics of Professor Rist and also personal statistics, as gleaned from the doctor's private cases, were given and showed that those patients in whom pneumothorax was successfully performed gave a remarkably high percentage of success, while those cases in which pneumothorax was attempted but unsuccessful, and those cases in which pneumothorax was urged but was refused, presented a very unsatisfactory prognosis.

The doctor's conclusions were: (1) That artificial pneumothorax is of the very greatest value in the treatment of advanced progressive types of pulmonary tuberculosis where the patient fails to respond to ordinary measures. (2) That complete compression is not necessary to obtain good results, but that frequently only partial compression will cause an arrest of the disease. (3) That pneumothorax is the only great positive thing to which we can turn in case of uncontrollable hemorrhage, and that it has been instrumental in the saving of many lives

which would otherwise have been sacrificed because of hemorrhage and complicating pneumonia. (4) That properly applied, the remedy can do the patient no harm if in properly selected cases. On the other hand, numerous cases who are otherwise doomed have become completely cured, and in those cases where arrest of the disease was not attained patients have experienced great relief, due to lessening of toxemia, with reduction or disappearance of fever; have experienced great reduction in cough and expectoration; have had relief from pleuritic pains; have had reduction or disappearance of laryngeal symptoms and have had restored to them a greater feeling of well-being and a happier outlook. And these things—cure in some cases, relief in others—have occurred in patients otherwise apparently doomed.

Durand, Gundrum, Howard, and Scatena discussed the paper. Durand stressed the fact that after nine years of refills he had the same respect for the pleural cavity that he had at that time. Scatena and Gundrum both spoke of rest, whether it be by pneumothorax or otherwise, as being the all-important factor. Howard inquired about the introduction of very small amounts of air in the pleural cavity with the idea of stopping the procedure much earlier than can ever be thought of in a large pneumothorax.

Peers concluded the subject by suggesting that the complete type of collapse is giving better results. He added that he does not advise collapsing the lung in early cases because there are two facts which he can never tell a patient: (1) he cannot tell who is going to get well, no matter how small or large the lesion is, and (2) he can tell no one how long it is going to take to get well.

After the second reading of the applications of Victor W. Hart, Ruth Carpenter Hart, V. F. Kennedy, John F. Drew and Dave F. Dozier, the unanimous vote of the Society elected all to membership.

The Board of Directors reported that they had advised W. M. Miller, who found it necessary to move to Auburn, as to his possible status with this or the Placer County Medical Society. Also that all members living outside of the immediate jurisdiction of this Society have been advised of the action that they must take before April, 1927.

There being no other business, the meeting adjourned for refreshments.

BERT S. THOMAS, *Secretary*.



SAN DIEGO COUNTY

San Diego County Medical Society—On November 18 the members of the medical society dined at the Casa de Manana, La Jolla, as the guests of the Scripps Metabolic Clinic through the courtesy of Directors McRae and Harper. The dinner was in honor of the clinic's guest, Dr. Elliott P. Joslin of Boston, whom our profession may well revere as its leading student and teacher in the field of diabetes. Nothing speaks more strongly of the triumphs of scientific medicine than the history of the advances in the knowledge and treatment of diabetes during the past fifteen years; and it has been practically an American triumph. While the names of Allen, Banting, Best, Benedict, Foster, Marsh, Newburgh, Wilder, Wood-yatt and others on this continent share with Joslin the credit of conquering this dread disease, to Joslin alone should be given the credit of correlating and assembling the knowledge gained and translating it into terse terms of instruction for both physician and layman, so that all that was of practical value in the everyday treatment of diabetes rapidly became available to everybody.

There were few vacancies at the banquet tables, as everyone was anxious to add his tribute to the glory of the honor guest.

After dinner adjournment was made to the La Jolla Woman's Club house, where the comfortable auditorium was filled to the doors with physicians and their friends, quite a few being noted from upstate cities.

After being introduced by Doctor Sherrill, the director of the Metabolic Clinic, Doctor Joslin held his audience for nearly two hours while he outlined the outlook for the diabetic. His talk covered practically every side of the diabetic subject, giving the professional part of his audience the latest views, established from the richness

of his personal experience, and yet using terms that the educated layman had no trouble in understanding. Of course, he could touch but lightly upon any particular spot, but there were few of the high spots that were not discussed. His talk had ever an inspiring note to it, encouraging the general practitioner to use all his intelligence on his cases even though the latest laboratory equipment might not be within his reach. To the layman was given the hope that he could be educated to take care of himself.

We need more of such public talks on matters of scientific health care. It would go far to break down the idea that doctors unite in a trust to control useful knowledge which should be broadly disseminated. We should hear of more trust in the doctor and less of the doctor's trust.

On Sunday afternoon, November 21, the recently completed wing of Mercy Hospital was dedicated with appropriate ceremonies to the work of mercy for which it was planned. Bishop Cantwell of Los Angeles, the bishop of this diocese, was the central figure of the occasion. Mayor Bacon of San Diego and Joseph Scott of Los Angeles made appropriate addresses and music added to the dignified ceremony, which was conducted in the open air in the presence of a large gathering of the friends of the institution. The new wing was then thrown open for inspection.

The New Medical Arts Building at Third and A streets is beginning to take tangible form and offices will probably be available by July 1, 1927.

ROBERT POLLACK.



SAN JOAQUIN COUNTY

San Joaquin County Medical Society—The regular and annual meeting of the San Joaquin County Medical Society was held Thursday, December 2, 1926, on the roof garden of the Hotel Wolf. The Society met for dinner at 6:30 p. m.

President H. S. Chapman called the meeting to order at 8:15. Forty-five were in attendance. Those present were: Drs. E. A. Arthur, J. W. Barnes, E. L. Blackmun, C. O. Bishop, A. C. Boehmer, R. A. Buchanan, H. J. Bolinger, C. A. Broadus, H. S. Chapman, Fred P. Clark, F. J. Conzelmann, J. T. Davison, J. F. Doughty, L. Dozier, C. F. English, E. Frost, O. H. Garrison, E. C. Griner, P. Gallegos, L. M. Haight, J. M. Hench, C. D. Holliger, J. P. Hull, H. E. Kaplan, Grace McCoskey, R. T. McGurk, A. H. McLeish, W. T. McNeil, F. G. Maggs, F. S. Marnell, F. J. O'Donnell, B. J. Powell, D. R. Powell, D. F. Ray, G. H. Rohrbacher, G. H. Sanderson, J. J. Sippy, Margaret H. Smyth, Hudson Smythe, C. V. Thompson, A. L. Van Meter, G. J. Vischi, B. F. Walker, E. W. Weirich, N. E. Williamson, Attorney Mike Shaughnessy and Dr. Howard C. Naffziger guests and speakers of the evening.

The minutes of the previous meeting were read and approved. The Chair appointed Edmund Frost, F. S. Marnell, and E. C. Griner as tellers for the annual meeting.

Dewey R. Powell, chairman of the committee relative to a clubroom and library in the Medico-Dental Building, reported that the committee recommended the organizing of a Medico-Dental Club, and presented by-laws governing such an organization, and setting forth the aims of the club. The by-laws were passed around and members who desired to join were asked to sign. Thirty of those present signed for membership in the club.

R. T. McGurk reported the activities of the legal committee of which he was chairman.

Mr. Shaughnessy, the attorney of the Society, gave a brief outline of what he had done in the matter relating to the County Hospital. He stated that many difficulties would have to be met by the Society, but believed it could be justly settled providing the physicians stand together and insisted on their lawful rights as citizens and taxpayers of this community. The Chair was authorized to appoint a legal committee of three to work with Attorney Shaughnessy. He named Doctors McGurk, D. R. Powell, and H. S. Chapman.

The applications for membership of Charles E. Stagner of Tracy, California; C. O. Bishop of Linden, California;

and Percy Gallegos of Stockton, California, were read and referred to the committee on admission.

A communication of J. D. Dameron, chairman of the committee to organize and conduct diagnostic clinics for crippled children was read and ordered filed. The committee is to continue its activities to accomplish the objects indicated in the resolution of the Society passed at the November meeting.

A communication of Frank V. Mayo, secretary of the Stockton Medico-Dental Building, Inc., was read urging members of the Society who are planning to become tenants of the building to make their decision very soon; in so doing they will save a great deal of expensive remodeling. The communication was ordered filed.

There being no other business to come before the Society for its regular meeting, the chairman declared the annual meeting in session at 9 p. m., and called for the annual report of the secretary-treasurer.

The annual report of the secretary-treasurer was read and ordered filed.

The tellers reported the highest number of votes cast as follows: J. W. Barnes, H. S. Chapman, Fred J. Conzelmann, J. R. Johnson, R. T. McGurk, Barton J. Powell, Dewey R. Powell, G. H. Sanderson, and J. J. Sippy, whom the Chair declared duly elected as directors of the Society.

From the members of the directors the Society elected J. W. Barnes, president; George H. Sanderson, first vice-president; R. T. McGurk, second vice-president; Fred J. Conzelmann, secretary-treasurer.

The election of standing committees was as follows:

Committee on Admission—J. D. Dameron, C. F. English, J. V. Craviotto, J. P. Hull, and B. F. Walker.

Committee on Ethics—C. F. English, Margaret H. Smyth, Barton J. Powell, R. T. McGurk, and C. D. Holliger.

Committee on Finance—J. V. Craviotto, Dewey R. Powell, and Fred P. Clark.

Committee on Program—G. H. Rohrbacher, George H. Sanderson, and S. Hanson.

Delegates and alternates for State Association—Barton J. Powell, delegate; B. F. Walker, alternate. R. T. McGurk, delegate; Margaret H. Smyth, alternate.

Moved by the secretary, seconded by McGurk, that Article X of the by-laws, relating to dues, be amended by substituting fifteen (\$15) dollars for twelve (\$12) dollars. Carried.

The chairman introduced Howard C. Naffziger, neurological surgeon, University of California Hospital, San Francisco, who spoke on the subject of "Cranial Injuries." After reviewing the writings of surgeons early in the eighteenth century, and even before this time, one is inclined to feel that but little of value has been added to our knowledge of treatment in recent years, said the doctor.

In the treatment of fractures of the skull with associated brain damage the pendulum has swung from time to time from extreme conservatism to radical treatment, such as decompression for all or nearly all. It seems to be the feeling of a considerable number of conservative neurological surgeons today that the cases requiring operations are very decidedly in the minority. In the hands of those who are doing most of this work, the percentage of cases operated upon varies between 10 and 25 per cent. The basis of judgment of cases needing operation is made not only on the signs of pressure which are present, but upon whether or not they are progressing. The classical signs of acute intracranial pressure are well known. The most reliable ones are slow pulse, increased pulse pressure, stupor or unconsciousness, rising blood pressure, altered respiration and Traube-Hering cycles, or what seems often to be its clinical equivalent, even in the absence of other signs, rhythmic recurring restlessness. These signs, however, are the ones presented by a normal brain which is reacting to pressure. The responses of a brain injured to various degrees and in various locations are often strange. They do not always follow this clear-cut picture. It is in these cases that judgment is most difficult. These well-known signs, however, along with such aids as direct measurements of the spinal fluid pressure and observation of the eye grounds in the more protracted cases, are helpful. In the acute traumatic

cases increased intracranial pressure is always due to an increased fluid content within the skull. This fluid may be present in the form of blood, increased cerebrospinal fluid, or through tissue edema resulting from the swelling of the contused brain. It is only by the removal of the fluid that pressure can be removed. The drainage of fluid by one route or another is the aim in any treatment. A decompressive operation which does not drain is of no value. With large accumulations of free fluid, frequent spinal punctures are used. In true tissue edema little or nothing is accomplished by spinal punctures. The intravenous injection of hypertonic solutions of sodium chloride or Ringer's solution or the administration of magnesium sulphate through the gastrointestinal tract are excellent methods for dehydrating the brain.

Before one determines the type of treatment in cranio-cerebral injuries a diagnosis must be made. The diagnosis is the beginning of treatment. In many cases the diagnosis will be delayed until the patient has been observed for hours and sometimes for days. The doctor is cautioned not to operate on a patient in shock; there is nothing gained by doing so. The decompression operation is strictly limited to those cases presenting focal signs of either foreign bodies or extradural hemorrhage. The study and observation of the patient is important to reach a diagnosis. Does he become irritable? Complain of headaches? Or show a tendency to doze? Slight differences in the movements of the arms and legs on the two sides are important to determine local accumulations of blood or fluid. The pupil on the side of a collecting hemorrhage will not react to light. It is important to ascertain whether the patient is thinking properly; notice the movements of the arms and legs and observe the condition of the pupil. The essential policy is to learn what to do, and when to do it; so that the patient will derive the most benefit. The way to acquire this knowledge is to take time to study and observe the patient carefully.

The members asked many questions, which the doctor answered in an interesting and instructive way.

There being no further business the Chair declared the annual meeting adjourned.

FRED J. CONZELMANN, *Secretary.*

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SANTA CRUZ COUNTY

Santa Cruz County Medical Society—The Santa Cruz County Medical Society members were guests of Dr. and Mrs. Grant Hatch of Santa Cruz at their December meeting. Vice-President Alfred Phillips presided, and sixteen members were instructed by an able discussion of "Cardiac Failures" by Professor William J. Kerr, University of California Medical School, San Francisco.

Refreshments were served at the close of the meeting and a delightful social hour was spent with the hosts and guest of honor.

Kerr in his discussion said:

"Heart failure in its broadest sense embraces all of those types of conditions where the heart is unable to carry on its usual activity in maintaining the life of the individual. Heart failure may be divided into several groups, the most common being congestive heart failure, anginal failure, functional failure with arrhythmias of various types and, fourthly, a large group of miscellaneous conditions such as traumatic injury, etc. Congestive heart failure is the one which is usually thought of when we speak of decompensation, where there is associated passive congestion with edema in various parts of the body. It makes no difference whether we have a regular or irregular rhythm in the treatment of such conditions. The various principles of treatment of such cases include rest, limitation of fluid intake, depletion by catharsis, diuresis, removal of fluid from various cavities, blood letting, etc. Various drugs are employed, such as magnesium sulphate, caffeine, digitalis, and members of the quinin group. There are a few points which must be kept in mind in the use of digitalis just as in the case of any other drug. *We must know the indications for its use. We must have a potent drug and we must give the drug until we get the result which we are trying to achieve, or until toxic symptoms force us to discontinue its use.* In anginal failure we must be sure to differentiate the symptom complex,

known as angina pectoris, from coronary occlusion. In the latter condition the picture is clear-cut with persistent pain which does not respond to rest or medication and which is frequently fatal. In the true angina pectoris case we must resort to the usual methods for the relief of the attacks and must reorganize the life of the individual. If these measures fail, then surgery by sympathectomy may be a valuable aid. In the third group of cardiac failures, namely, the arrhythmias, which are functional in nature, we may get great relief during attacks of various sorts, or may prevent paroxysmal attacks of disturbed mechanism, by quinin, quinidin, or strychnin given over a considerable period of time. However, we must keep in mind the underlying pathology which may be present that may eventually lead to permanent derangement of the heart."

The January meeting of the Society will be held in Watsonville.



TULARE COUNTY

Tulare County Medical Society—The regular monthly meeting of the Tulare County Medical Society was held at Motley's Cafe in Visalia. Dinner was served about 6:45, with twenty-three present. Members present were Willey, Miller, Tourtilott, Goresbeck, Brigham, Tilletson, Seligman, Weddle, Zumwalt, Fuller, Pain, Hicks, Zeller, Ginsburg, Betts, Banks, Preston, Lipson, Edmonds, and Campbell. Guests present were Dr. Rivin, Seibert, Cleary.

The meeting was called to order at 8 o'clock by President Betts. The minutes of the last meeting were read and approved.

Charles Weddle of Dinuba presented his application for membership to our society and was elected, subject to approval of the State Society.

J. Seiberth of Pixley presented his application for transfer to our society from the Wisconsin State Society. He was invited to meet with us until the transfer could be arranged.

E. W. Cleary of San Francisco then addressed us upon the subject of "Fractures of the Long Bones," illustrating his talk by lantern slides and by the application of miniature splints to a mannikin in a very practical and realistic demonstration.

It was moved by Paine and unanimously carried, that Doctor Cleary be given a vote of thanks by the Society.

Meeting adjourned at 10 o'clock.

H. G. CAMPBELL, *Secretary*.

CHANGES IN MEMBERSHIP

New Members—John F. Drew, Walnut Grove; Dave Ford Dozier, Ruther Carpenter Hart, Sacramento; Victor Hart, Fair Oaks; Vernon F. Kennedy, Repressa; Lloyd B. Dickey, Francesco A. di Grazia, Norman N. Epstein, James B. Herring, San Francisco.

Transferred—T. Floyd Bell, Fresno County to San Francisco County.

C. Conrad Briner, San Francisco County to Placer County.

Hervey Graham, San Francisco County to San Diego County.

Keene O. Haldeman, San Francisco County to Rochester, Minnesota.

Nikander Riaboohin, Orange County to Los Angeles County.

John A. Jackson, Orange County to Los Angeles County.

Resigned—Percy Sumner, San Francisco; William A. Key, Paul F. Straub, Los Angeles.

Deaths—Brennan, Thomas Francis. Died at Los Angeles, November 23, 1926, age 60. Graduate of the University Medical College of Kansas City, Missouri, 1891. Licensed in California in 1892. Doctor Brennan was a member of the Los Angeles County Medical Association, the California Medical Association, and a Fellow of the American Medical Association.

Dwight, Wilder. Died at Oakland, November 22, 1926, age 58. Graduate of the University of Southern California College of Medicine, Los Angeles, 1896, and licensed in California the same year. Doctor Dwight was a member of the San Francisco County Medical Society,

the California Medical Association, and a Fellow of the American Medical Association.

Oldham, John Y. Died at Los Angeles, September 19, 1926, age 60. Graduate of the Kentucky School of Medicine, Louisville, 1885. Licensed in California in 1905. Doctor Oldham was a member of the Los Angeles County Medical Association, the California Medical Association, and the American Medical Association.

Remondino, Peter Charles. Died at San Diego, December 10, 1926, age 80. Graduate of Jefferson Medical College of Philadelphia, 1865. Licensed in California in 1878. Doctor Remondino was an affiliate member of the San Diego County Medical Society, the California Medical Association, and a Fellow of the American Medical Association.

Todd, George Bell. Died at Napa, November 18, 1926, age 65. Graduate of Saint Mungo's College and Glasgow Royal Infirmary, 1884. Licensed in California in 1920. Doctor Todd was a member of the Napa County Medical Society, the California Medical Association, and the American Medical Association.



JAMES WILLIAM THAYER
1854-1926

James William Thayer, born in New York, July 23, 1854, died November 12, 1926, of coronary embolus. Graduated from the College of Physicians and Surgeons, Keokuk, Iowa, 1879. Was assistant chief surgeon Mexican Central Railroad, in charge of their hospital at Chihuahua, Mexico, from 1882 to 1886, then practiced in El Paso, Texas. Came to Gilroy in February, 1888, became a mem-

ber of the State Medical Society and of the Santa Clara County Society at once. For twenty-five years he was district surgeon for the Southern Pacific Railroad Company, and for thirty-five years deputy county health officer, and for many years city health officer for Gilroy.

Doctor Thayer served twelve years as secretary of the Chamber of Commerce, and for many years before that was a member of the City Council. He had the first private telephone in Gilroy. He was, as one of the Southern Pacific employees said, "everybody's friend." One of the many letters received by his daughter after his death expressed what was heard on all sides, "no night was ever too stormy for him to come out in the country to us." He was treasurer of the Presbyterian Church, devoted to his church and its interest, with a faith so serene that his passing was a beautiful ending of the seventy-two years of useful life, which had been a blessing to so many.

The Metropolitan Life Insurance Company in recognition of his twenty-five years as their examiner sent to him a diamond-set medal, which arrived after his death.

He had practiced continuously for thirty-eight, almost thirty-nine years in Gilroy, carrying on his practice in the years when a horse and buggy took him miles up in the hills in stormy nights—just a regular old-time country doctor with over 1400 births in his records—a real family doctor.



WALTER I. BALDWIN
1885-1926

Walter I. Baldwin—California born, California trained, a brilliant surgeon and a lovable man.

His early years up to the beginning of his university career were spent in Eureka. Any estimate of his subsequent accomplishments must pay homage to the tireless devoted energy of his mother. It was her industry and perseverance in the face of early widowhood which made his education possible. Her zealous affection was his constant inspiration. This bond of mutual love and respect continued to the end.

He received the degree of Bachelor of Science in 1909 and Doctor of Medicine in 1911, both from the University of California. Then followed an intern year at the University Hospital and postgraduate study in the eastern part of the United States and in Europe. He came home

to practice orthopedic surgery in 1914 and was promptly made chief of this specialty at his alma mater.

Then followed with amazing swiftness one of the most remarkable meteoric careers in the history of our local profession. He was the leader of his field when only 30 years of age, incapacitated by illness at 38 and dead at 40. He had crowded into ten years what few men attain in thirty. What is perhaps still more significant, out of the middle of those ten years he snatched two for distinguished service in the World War, recognized by the rank of Lieutenant-Colonel. In later years beside an enormous private practice, and his work as Clinical Professor of Orthopedic Surgery at the University, he gave liberally of his time and experience to what he loved most of all, his duties as chief surgeon to the Shriners' Hospital for Crippled Children.

What exceptional qualities made all this possible? Chiefly, perhaps, a fine mind, skillful hands and above all, a big heart.

Patients adored him—young and old, men and women, boys and girls. All successful physicians possess that essential characteristic, personality, but in Walter Baldwin this quality amounted to positive magnetism. All of his myriad patients on more than one occasion waited long, weary, fretful hours before they reached his presence, often peppery and exasperated as they entered his room. In an instant, as if by magic, they were under the spell of that cheery heartening smile of his, and he in turn was absorbed in their affliction as if no other patient existed.

Always he was gentle. In his difficult operations and manipulations he forever strove to spare his patient distress and discomfort; he could never steel himself to witnessing pain. No effort was too great, day or night, which might avoid causing anguish or which might soothe or relieve suffering. No wonder his patients loved him.

His friends were legion and loyal, in and out of his profession. Their fondness and affection for him knew no bounds. His radiant charm, alas, is gone and an aching void is left, but none would have wished him to linger on. He literally wore himself out for others.

Deepest sympathy goes out to his devoted wife whose life with him was so pathetically brief. Three children barely knew their father, but there will be many tales to tell them as they grow older—tales that stand in incontrovertible proof of Dr. Walter Baldwin's brilliance, kindness, and eminence.

Resolutions of the Council on the Death of James H. Parkinson and Saxton Temple Pope

Adopted and ordered published at the meeting held in San Francisco, December 4, 1926.

James H. Parkinson:

Whereas, Dr. James H. Parkinson has been a zealous and beloved member of the California Medical Association since 1884, and has been most faithful in his attendance at the meetings of our Association; and

Whereas, Doctor Parkinson served this Association as president in 1910 directing its affairs during that year to the great benefit of the Association; and

Whereas, Doctor Parkinson has been an active member of the Council of the California Medical Association, giving freely of his time and energy to the promotion of its interests since 1906, and has served as the chairman of the Council for the last four years; and

Whereas, During all these years Doctor Parkinson has given to the California Medical Association and to its Council faithful and valued services combined with an executive ability of high order, has added contributions of great worth to its scientific programs, has fought the battles of the Medical Association and has with courage and ability sustained and upheld the best interests of the medical profession at all times; and

Whereas, Doctor Parkinson has been removed from our midst by the hand of death; therefore be it

Resolved, That in the death of Doctor Parkinson the

Medical Profession of the state has suffered the loss of one of its most valued members; that the Council has lost a presiding officer of rare executive ability; and that the commonwealth has lost an honorable and distinguished citizen; and be it further

Resolved, That a copy of these resolutions be spread upon the minutes of the Council and be published in CALIFORNIA AND WESTERN MEDICINE.

Saxton Temple Pope:

An all-wise Providence has seen fit to call Saxton Temple Pope from among his earthly fellows. Yet he is not gone, for his was a spirit that influenced all who contacted with him, and that influence will continue to be with us.

He was the type of the true physician, the type on whom human beings lean heavily when in physical affliction, because of the confidence that is given to a physician who has a heart full of the milk of human kindness, and who has a learned brain and a technical medical and surgical skill that augurs for successful work.

If with such attributes go modesty and conscientious devotion to duty and service, and a character and personality that draw other men to him, then a man may indeed feel that his existence on earth had made the world somewhat better. Such a man was Saxton Temple Pope.

Saxton Temple Pope loved his profession and its opportunities for service; he loved all things good; and he had the courage and will at all times to battle for the same; he loved the great outdoors and was alert to the influences of nature to an extraordinary degree; he had a brain that thought clearly, a heart full of courage, and an individuality that feared nothing in the quest of a legitimate aim.

He was humble in the acquisition of knowledge that seemed to him worth the while, no matter from what source coming; and was patient and diligent in his endeavors to profit and make the most of his knowledge.

He was a sportsman in the highest and best sense of that term, disdaining the taking of an unfair advantage with either man or beast, and subjecting himself to the rigor of the severest discipline in order to give fair play to all.

He reflected honor on the medical profession of the great state of California; he was a most faithful servant and efficient co-worker in the development of organized medicine and of our California Medical Association, and his place and presence will be sorely missed by patients, friends, and colleagues.

The members of the Council of the California Medical Association bow their heads in silent prayer, in gratitude for the opportunity of having known him and of having had him as a co-worker. The Council on behalf of themselves and the California Medical Association extends to the bereaved family of Saxton Temple Pope its sincerest sympathy.

God grant that men of the type of Saxton Temple Pope may be many, and for all time be a part of the California Medical Association.

Treatment of Phagedenic Ulcerations of Genitals—

During the last two years, while experimenting with the treatment of a series of cases of granuloma inguinale, Jerome Kingsbury and Samuel M. Peck, New York (*Journal A. M. A.*), have used antimony and potassium tartrate in a number of other conditions with more or less success. Cases of phagedenic ulcerations of the genitals that previously had not responded to local therapeutic measures were rapidly healed by the intravenous injections of antimony and potassium tartrate. This treatment should not be employed for simple chancroids, but reserved for those types of genital lesions which deep and rapid ulceration has rendered unsuitable for routine local measures.

New planets have been named Arequipa, Cantabria, Rotolphia and Portlandia, and, if that isn't stealing the stuff of the Pullman Company, what is?—*Charleston Gazette*.

AMENDMENTS TO THE CONSTITUTION AND BY-LAWS OF THE CALIFORNIA MEDICAL ASSOCIATION

Second publication of amendments to the Constitution and By-Laws submitted at the Fifty-fifth Annual Session of the House of Delegates of the California Medical Association.

The following amendments apply to Constitution and By-Laws adopted June 23, 1923. Proposed amendments appear in black face type; original wordings appear in parenthesis:

Article VI

OFFICERS

Section 1. The officers of this Association shall be a President, a President-elect, a Vice-President, seven Trustees, a Speaker and Vice-Speaker of the House of Delegates, and fifteen Councilors, of whom one shall be elected from each of the nine Councilor districts and six at large, two of whom shall be elected from the county of Los Angeles, and four from the remainder of the State. Not more than three Councilors shall be elected from any one Councilor district. These officers, other than Trustees, shall be elected by the House of Delegates at the time and in the manner provided in this Constitution and By-Laws.

Sec. 2. The officers, except the Councilors and Trustees, shall be elected annually. The terms of the elected Councilors shall be for three years. The terms of the Trustees shall be two for five years, one for seven years, and two for nine years. The President and the Secretary shall be elected annually. The Council shall elect the Trustees at its first meeting held after the annual meeting of the Association. All Trustees shall hold office until their successors are elected.

Sec. 3. The Association shall elect a President for the next succeeding year who shall remain President-elect for one year preceding his assumption of the office of president. While President-elect he shall be ex-officio a member of the Council and of all other bodies and committees of which the President is an ex-officio member. The Speaker and Vice-Speaker, who may or may not be members of the House of Delegates, shall be elected for a term of one year, commencing on the adjournment of the annual meeting at which elected.

Sec. 4. No delegate during his term of service as delegate shall be eligible to any office named in Section 1 except that of Councilor, and no person shall be elected (to any such office) President, President-elect, Vice-President and Councilor, who has not been a member of the Association for two years (next) preceding his election. Every delegate and alternate to the House of Delegates of the California Medical Association must have been a member of the Association for one year prior to his election.

Article V

COUNCIL

The Council shall consist of the elected Councilors and ex-officio the President, the President-elect, the Vice-President, the Speaker and the Vice-Speaker of the House of Delegates. (Besides its duties mentioned in the By-Laws, it shall constitute the Finance Committee of the House of Delegates.) Five Councilors shall constitute a quorum.

Article IX

FUNDS AND EXPENSES

Funds shall be raised by equal per capita assessments upon the active members of each county society, and by such donations, voluntary subscriptions, endowments and gifts, proceeds from publications and such other earnings as are acceptable to the Council. The amount of assessments shall be fixed by the (House of Delegates by a two-thirds vote thereof of those present) Board of Trustees. The fiscal year of the society shall be from January 1 to December 31. The number of members in good standing in each county society on the first day of October of each

year shall be taken as the basis for the assessment for the following fiscal year.

Article XIII

Trustees

Section 1. The Board of Trustees shall consist of seven members, who shall hold, administer, manage and control all funds and properties of the Association.

Sec. 2. No person shall expend or use for any purpose money belonging to the Association without the approval of the Board of Trustees.

Sec. 3. All acts of the Council involving expenditure, appropriation, or use in any manner, of money, or the acquisition or disposal in any manner, of property of any kind belonging to the Association, must be approved by the Board of Trustees.

Sec. 4. The Board of Trustees may formulate rules governing the expenditure of money to meet the necessary running expenses and fixed charges of Association, as well as such other rules governing its actions as it may deem necessary or desirable. Four members of the Board shall constitute a quorum for the transaction of business. The Board shall elect its own Chairman and Vice-Chairman, but the Secretary of the Association shall be the Secretary of the Board.

Sec. 5. The Trustees shall hold quarterly meetings at such time and place as the Board shall designate, but special meetings may be called at any time by the President, and shall be called by him, on the request of two or more Trustees.

Sec. 6. The Trustees shall make an annual report of the financial and general status of the Association at the annual meeting of the Association, and to the Council at its fall meeting and at such other times as the Council may request.

Sec. 7. Absence of a trustee from three consecutive meetings of the Board of Trustees without an excuse satisfactory to the Council shall be interpreted as a resignation from the Board of Trustees. Upon receiving notice from the Secretary of such absence the Council shall proceed to elect a Trustee to fill the vacancy.

Sec. 8. The Council may, at any time it deems it necessary or advisable, direct the incorporation of said Board of Trustees under the laws of the State of California, and the Trustees shall thereupon form and organize such corporation.

Amendments to the By-Laws

Chapter I

All members (affiliate, associate and honorary members of county societies) of county societies—active, associate, and affiliate—shall by virtue of such membership (be members, affiliate, associate or honorary members of this Association) hold corresponding membership in the California Medical Association upon certification by the Secretary of the county society of such membership and receipt by the Secretary of this Association of the assessment for the fiscal year.

Chapter III

HOUSE OF DELEGATES

Renumber Section 3 as 4; 4 as 5; etc.

Section 3. The Speaker shall preside at the meetings of the House of Delegates and shall perform such duties as custom and parliamentary usage requires. He shall have the right to vote only when his vote shall be the deciding vote. The Vice-Speaker shall officiate for the Speaker in the latter's absence or at his request. In case of death, resignation, or removal of the Speaker, the Vice-Speaker shall officiate during the unexpired term.

Sec. 10. The Speaker of the house or in the absence of such officer, the Chairman of the Council, prior to each annual session shall appoint a credentials committee, consisting of two members of the House of Delegates and the society Secretary ex-officio. The function of the committee shall be to register and to pass on the credentials of all members of the House

of Delegates, and submit to the House of Delegates a written report or reports, giving the names of all members eligible thereto. Provided, however, that the members seated by the committee shall have the right through two-thirds vote to amend the report or reports of the Credentials Committee.

Sec. 11. No Delegate or Alternate whose name has not been certified in writing as such by his county unit, through the President and Secretary, and filed in the office of the State Secretary at least fifteen days subsequent to the first of March shall be entitled to a seat in the House of Delegates. The State Secretary shall notify each delegate of his election and forward certificate credentials with notice of Councilor's rulings governing election and penalty for nonattendance; and no delegate absent without prior notification to his County Secretary or Secretary of this Association shall be eligible to a seat in the House of Delegates the following year; and it shall be the duty of the Secretary to mail a list of all absent delegates to the proper county units.

Chapter IV

Section 3. The Secretary shall attend the general meetings of the Association; the meetings of the House of Delegates, and of the Council, and the Trustees, and shall keep the minutes of their respective proceedings. He shall be ex-officio Secretary of the Council. He shall be the custodian of all records, books and papers belonging to the Association, and shall keep account of and promptly turn over to the depositary all funds of the Association which come into his hands. He shall provide for the registration of the members and delegates at the annual meetings. He shall, with the co-operation of the secretaries of the county societies, keep an approved register of all the members of the Association by counties, noting on each his status in relation to his county society. He shall aid the Councilors in the organization and improvement of the county societies and in the extension of the usefulness of this Association. He shall conduct the official correspondence, notifying members of meetings, officers of their election, and committees of their appointment and duties. He shall employ such assistants as may be authorized by the Council and shall make an annual report to the House of Delegates. He shall supply each county society with the necessary blanks for making its annual report; he shall keep an account with the county societies, charging against each society its assessment, and collect the same. He shall in like manner keep an account with each member as to any assessment or assessments levied directly upon each member, and collect the same. As chairman of the Committee on Scientific Program, he shall prepare and issue all programs. He shall perform such other duties as the Council may direct. He shall be appointed by and have his compensation fixed by the Council.

Sec. 4. The depositary of the Association shall be a bank or trust company selected by the (Council) Trustees. All funds received for the Association by any officer or agent thereof shall be promptly paid to the Secretary and by him deposited with the depositary. The depositary shall pay out the money of the Association only upon check or draft signed by the Secretary and countersigned by the chairman or other designated member of the (Council) Board of Trustees. The Secretary shall issue such checks or drafts only upon vouchers approved by the Auditing Committee and signed by all the members thereof. A revolving fund in such amount as may from time to time be fixed by the (Council) Board of Trustees shall be left with the Secretary, from which fund immediate cash demands may be paid.

Chapter V

COUNCIL

Section 1. The Council shall meet on the day preceding the annual meeting of the Association and daily during its sessions, and it shall also hold at least three other meetings during the year, at least one of which shall be held in the southern part of the State. Special meetings may be called by the chairman at any time, and he shall call a special meeting upon the written request of at least three Councilors, provided written notice of the time,

place and object of the proposed special meeting be given by the Secretary to all members of the Council not less than seven days prior to such meeting. At the meeting held on the last day of the annual meeting of the Association the Council shall reorganize and shall elect a chairman for the ensuing year.) The Council shall fill all vacancies in the Board of Trustees. The chairman shall make an annual report to the House of Delegates.

Sec. 2. (The Council shall have power to invest the funds of the Association, and to do and perform all acts and transact all business for and on behalf of the Association when the House of Delegates is not in session. It shall also have power to delegate such powers and duties as it may determine to the Executive Committee hereinafter provided for). The Council shall have power to do and perform all acts, transact all business for and on behalf of the Association other than those powers and duties herein or in the Constitution vested in the Board of Trustees. The Council shall also have power to delegate any of its powers as it may determine to the Executive Committee hereinafter provided for.

Section 13. The Council shall appoint an attorney at law in good standing, practicing his profession (at San Francisco) in the northern section of California, to act as general attorney for the Association, and an attorney practicing his profession (at Los Angeles) in the southern section of California, to act as assistant general attorney. The General Attorney shall, so far as possible, attend the sessions of the Council, the Executive Committee, and of the House of Delegates and shall generally advise and counsel with the Councilors and the officers of the Association. The General Attorney or Assistant General Attorney shall have charge of all actions for malpractice against individual members of the Association on behalf of such members whenever their defense is authorized by the Association, through the Council, the Executive Committee, or the Secretary thereof.

Sec. 15. The Executive Committee of the Council shall consist of the President, the President-elect, the Vice-President of the Association, the Chairman of the Council, the Chairman of the Auditing Committee (and the Secretary-Editor) the Secretary and the Editor. The committee shall elect its own chairman, and the Secretary shall act as Secretary thereof. It shall keep a record of its proceedings and report them to the Council, and all of its proceedings shall be subject to the approval of the Council.

Chapter VI

ORDER OF PROCEDURE

(The Program Committee.) The Committee on Scientific Program shall consist of the Secretary of the State Association (and four members of the Association who shall be elected by the House of Delegates, one each year, to serve for four years) the Editor, the Secretaries of the sections on General Surgery and General Medicine, and three others to be elected by the House of Delegates for a term of three years, one being elected each year. The Secretary of the Association shall be the chairman thereof. It shall determine the character and scope of the scientific proceedings of the Association, subject to the instructions of the Council (and shall provide for and fix the order of business at the sessions of the General Meeting, the sessions of the House of Delegates and the sessions of each section).

Chapter VII

Section 4. Each county society shall judge the qualifications of its members. However, as such societies are integral parts of this Association and all the basis of membership in the American Medical Association, it is necessary that the qualifications meet the minimum requirements of the State and National organizations. These minimum requirements are that to be eligible for election as an active or affiliate member the applicant must hold the degree of Doctor of Medicine from an (accredited medical school) institution of learning accredited at the time of conferring such degree by the American Medical Association, and must be licensed to practice medicine and surgery in the State of California.

Every associate member must hold the degree of Doctor of Medicine from an institution of learning accredited at the time of conferring such degree by the American Medical Association, and must not be licensed to practice medicine and surgery in California, and hence be ineligible to active membership. (He) A member must not practice or claim to practice or lend his support, co-operation, or in any other way endorse any exclusive system of medicine or any person practicing the same. He shall be honorable and ethical in his conduct and shall subscribe to the principles of medical ethics of the American Medical Association, and shall recognize the Council of this Association as the proper authority to interpret any doubtful points in ethics. Every applicant for membership in a county society shall fill out and sign in duplicate the application blanks provided by the society which prescribe the necessary qualifications for membership. One copy of each such application shall be promptly forwarded to the office of this Association.

Sec. 8. (A physician living on or near a county line may hold his membership in that county most convenient for him to attend, provided that the consent of the society of the county in which such physician may reside be first obtained, and also the consent of the society which he desires to join.) A physician who states he has his major office for professional practice in one county, even though his legal home or residence may be in some other county, may have the option of joining or maintaining his membership in the county medical society of the county in which he has his major office for professional work, or in the county medical society in which he has his legal home or residence.

Sec. 14. Any county society may, in its discretion (create affiliate, associate and honorary members. When the county society follows the provisions of the State Association in its affiliate, associate and honorary membership provisions, such associate, affiliate or honorary members of county societies may be elected by the Council to corresponding positions in the State Association) elect active, associate and affiliate members under and pursuant to the provisions of Article III of this Constitution. Any county society may also elect honorary members of its own society, but such honorary members shall not thereby be honorary members of this Association.

Intraocular Sarcoma in Children—A report of ten cases of intraocular sarcoma in children is made by Walter R. Parker, Detroit, and William H. Stokes, Dallas, Texas (*Journal A. M. A.*). In the ten cases fourteen eyes were affected clinically and eleven were made available for pathologic study. In four cases both eyes were involved. In one case the second eye was enucleated after death. In eight cases the history showed no evidence of an hereditary tendency. In two cases the history was unknown, although the patients were sisters, each having both eyes affected. In six cases the orbit was subjected to roentgen ray therapy after exenteration had been performed. In three cases recurrence and death occurred, in two cases there was no recurrence, and in one case the result is unknown. In two cases the remaining eye was treated with radium, in one of which the process was not arrested. In the other case, which is still under observation, there has been some increase in the size of the neoplasm, but the rapidity of the growth seems to have been checked. Four cases with six eyes or orbits affected were under observation at one time. An analysis of the pathologic data in the ten cases reported seems to warrant the conclusion that the growths were all sarcomatous. Neoplasms of this nature are nonpigmented, rapid in growth and highly malignant, and have marked properties of angioblastic proliferation. The apparent rosette structure, seen in two of the cases, represents the early peritheliomatous proliferation. It is due entirely to the proliferation of the cells arising from small blood vessels and is not characteristic of epiblastic tumors. In the older portions of the neoplasms this structural arrangement is absent. Further study will be necessary to prove definitely the suggested possibility that a glioma or a neuroepithelioma of the retina as a clinical entity in children does not exist.

UTAH STATE MEDICAL ASSOCIATION

W. R. CALDERWOOD, M. D., Salt Lake.....President
E. H. SMITH, M. D., Ogden.....President-Elect
FRANK B. STEELE, M. D., Salt Lake.....Secretary
J. U. GIESY, M. D., Salt Lake.....Associate Editor for Utah

THE HYPOCHONDRIAN SPHINX

In a narrow valley in the hinterland of the Hepatic Range to one side of the narrow channel of the Ductus Choledochus, which through the Hepatic Ducts drains the entire Hepatian watershed, via the lower pass of the Foramen Winsloii, into the broader current of the Duodenum, lies the domed structure of the Hypochondrian Sphinx. Like the Delphian Oracle and the huge crouching colossus of the Egyptian sands, its riddle remains unsolved throughout the years. Many have come to question as to its purpose, and yet the riddle has not been read.

About the Hypochonrian Sphinx, even within its purlieus is a rich mining country out of which much wealth has been extracted by professional miners through tunneling operations. The principal yield has been in silver, currency and gold running a very high per cent, when compared to the actual waste or "muck" needful to be moved in the form of "stones." There is even gold in bile when removed from this territory by means of a "pipeline" of rubber led from the parent lode to the surface.

All of which is facetious of course, but in a sense true none the less. For the riddle of the Hypochondrian Sphinx, or the Gall Bladder seems to be sphinklike yet, indeed. Theories advanced by brilliant minds still fail to give the answer to a workable extent. Argument seems as yet to be the main result. Even the presence of the valves of Heister, evidently under the control of muscular action through the sympathetic nervous system, results in but two sides of a question as to whether the valves control a flow of bile *into* the bladder or—out! Some regard it as a reserve reservoir, some as a concentration sump. Yet that it has a function one can scarcely doubt. And now that the enthusiasm first marking cholecystectomy has passed to an extent, we begin again to take stock. Mankind may live without an appendix, without tonsils, without teeth. He may get along with one lung or one kidney; may still procreate his species with one testicle or one ovary and yet be proud or cast down by the result. But seemingly the fate of mankind without a gall bladder is, in the parlance of this era, "not so good." He'll live. Life is a very tenacious thing and persists under at times amazing conditions. But his days will very probably be filled with a great deal besides physical happiness. And when he dies—or before—if the field of the operation is investigated later, one can see full proof in the change in the main duct, that nature has tried by an enlargement, a stretching of this structure to compensate for the function of the organ which has been removed.

And so the Hypochondrian Sphinx still crouches in its narrow valley, and the pilgrims question, and

the miners mine, and others seek at times to catch some of its liquid gold through a Lyon's tube.

But hope springs eternal, it is said, and as a new year dawns, hope again springs in the minds of those who search for the answer that within some date not far in the future the riddle may be read. The profession has gone far since the days of leech and lancet—so far that rather than taking blood away we generally put it in, and it is not too much to expect that some day, with the answer in our possession, we shall understand better, be better able to attack the problem of these types of disease.

The editor feels that the following lines are exceedingly good. We do not mean that the indicated method is the only one of reaching a colloidal state of mind. Personally we have attained that result without any effort at times. The condition simply developed in an idiopathic fashion, resulting in a most remarkably colloidal state of thought—a condition indeed in which our mental structures appeared to be about as purposeful as the apparent animus of a common ordinary variety of jelly fish. However, in these days of Volsteadian regulation, departmental interpretations, and Supreme Court interdictions upon professional judgment, a colloidal state of mind seems a very timely topic. We hope therefore that he who runs may read:

THE COLLOIDAL STATE OF MIND

By DR. T. A. FLOOD

When I was calmly notified not many days ago
That I was listed for a toast on something apropos,
I felt so flabbergasted that my mind went out of gear,
For I could think of nothing that you'd really care to hear.
I thought of all the stories that you've heard a thousand
times
At after-dinner functions, and the toasting done in
rhymes;
I thought of all the banter and the brilliant repartee
Which on other fit occasions had appealed to you and me.
I gathered up the odds and ends of humor and of wit,
But doubted if the best of these would even make a hit;
And I knew you were familiar with the wise and witty
cracks
Which somehow run forever in the standard almanacs.
As I could think of nothing then, original or new—
(And I know exactly how it feels to be in such a stew)—
I offered explanations, and I begged to be excused,
But all of my entreaties were quite graciously refused.
I even tried protesting in a diplomatic way,
Still hoping I might wiggle out and make my get-away;
But Sister M. Superior replied, "Now, that's enough"—
So here I am, defeated, but prepared to do my stuff.
Until I read the title of the task assigned to me—
A subject quite intangible, as anyone can see—
I hadn't one idea as to what I'd talk about,
Because the subjects chosen hadn't yet been given out.
In downright desperation, I began to look for aid
By scanning through the records that distinguished men
have made:
By reading noted authors, just to see what I could find
On chemical reactions that affect the human mind.
But none of these authorities had anything to say
On this important topic, very much to my dismay.
Perhaps they just evaded it and left it undefined,
For none had even mentioned a colloidal state of mind.
I fingered through the pages of a stack of magazines,
Determined I would find a way by fair and honest means
To get the information that was needed to expound
The subject in a manner that would cover all the ground.

I felt the strain, however, of attention long sustained,
And finally decided there was nothing to be gained
By too much concentration on the object of my quest,
So I turned to lighter reading for a temporary rest.

For reading that was easy and that didn't tax the mind,
Commercial advertising was the best that I could find:
For mental relaxation, it's a thing that doesn't call
For any conscious effort of the intellect at all.

I read the ads extolling many brands of facial cream,
And noted that, with friction, they would vanish like a dream;
But the magic beautifiers that were lauded to the sun
Outnumbered all the others at a ratio ten to one.

I read the ads commending all the better-grade cigars,
And those with illustrations of the latest auto cars—
Of cars equipped with everything a person might desire,
And a raft of other luxuries that most of us require.

I read the testimonials that boosted brewers' yeast,
And found them altogether quite a literary feast:
The claims were so extravagant, the way the stories read,
I wondered why they didn't claim that yeast would raise the dead.

The stuff was recommended for eruptions on the face,
And for the preservation of agility and grace;
For all the bad disorders of the liver and the nerves,
And all the other punishments the human race deserves.

Of course, I didn't credit what I read concerning yeast,
But thought I might experiment and try it out, at least.
By following directions that were printed as a guide,
I started with a single cake, which I had liquefied.

With growing curiosity—although it seems absurd—
I noted every symptom at the moment it occurred:
But very little happened while I waited, undismayed,
For inside information, which appeared to be delayed.

The second day a double dose was taken as prescribed,
And in my memorandum book a record was inscribed.
I still had some misgivings, for I couldn't then detect
That the yeast was even working, or was having much effect.

But when the next day rolled around, the third day of the test,
I took three pieces of the stuff that Fleischman had compressed.
It seemed to me, soon afterward, there was a sudden change,
For a feeling of expansion had enlarged my mental range.

And much to my astonishment, with each succeeding day
A vague exhilaration seemed to carry me away:
Ideas flowed like cataracts and, then, at other times,
My words would run persistently in easy-going rhymes.

I've wandered rather far afield in trying to explain
Just how it is that yeast affects the functions of the brain;
But if I'm sure of anything that's clear and well defined,
I know that yeast produces a colloidal state of mind.

The Jelly-like condition that the colloids all maintain
Is a chemical enigma, and will always so remain:
It's like the ectoplasm that Sir Conan raves about
In his lucid explanations, for it leaves us still in doubt.

In closing, I am hopeful that our most distinguished guest
Will take no hasty action that would lead to my arrest:
If I've offended anyone, then, let me say, at least,
It's because I'm convalescing from an overdose of yeast.

Utah News—The regular meeting of Weber County Society was held Wednesday evening, November 16. The principal business of the evening was the election of officers for the coming year. Election resulted as follows: R. L. Draper, president; W. R. Brown, vice-president; H. C. Standquist, secretary-treasurer. Delegates to state convention: E. R. Dumke, R. L. Draper, W. Whalen, A. Z. Tanner, L. S. Merrill. Alternates: G. A. Dickson, H. W. Nelson, L. R. Jackson, E. P. Mills, W. Budge.

Dumke and Ezra Rich reported on their recent trip to the conventions at Montreal and Cleveland, and the clinics in those cities.

Calderwood and officers of the State Association, Smith, president-elect, and Landenberger and Merrill, councilors, and Secretary Steele made their official visit to the Utah County Society on the evening of Wednesday, December 8. The paper of the evening was "Surgery of the Diabetic" by J. A. Phipps. Dinner was served to the visitors and society members at the Roberts Hotel.

A similar visit was made by the same officers to the Weber County group on Thursday, December 9. Dinner was served at the Weber Club, and a paper on "Per-nicious Anemia" was read by L. L. Daines.

State Secretary Frank Steele is back from the meeting of the state secretaries at Chicago. He reports the main topics of discussion at the meeting to have been an additional stressing of the periodical examination of the apparently well, and a consideration of the problem offered by indigent physicians. Full accounts of the meeting will, of course, appear in the official bulletin.

Cyril Callister returning from the Montreal and Cleveland conventions entertained the members of the Wasatch Academy (review group) with a report on the transactions and papers of the two assemblies.

A. J. Hosmer is making a visit in Ann Arbor to his family and relatives.

Clarence Snow was elected chairman of the medical staff of the L. D. S. Hospital for the coming year. E. L. Skidmore was chosen vice-chairman of the medical staff and Joseph E. Jack was retained as secretary and treasurer.

The annual dinner of the Holy Cross Hospital staff was held Tuesday night at the hospital, with the Rt. Rev. John Joseph Mitty, D. D., as the guest of honor. Dr. William Donohoe was the toastmaster, and informal talks on the life and growth of the hospital during the past twenty-five years were given by E. F. Root and A. J. Hosmer, both of whom are veteran staff members. Other speakers were Fuller B. Bailey, Thomas A. Flood, John J. Galligan, and Sol G. Kahn.

At a time when he is facing one of those inevitable hours of sorrow which in the very necessity of human activities must come to any or all who may be called upon to meet the loss of one near and dear to his innermost affections, the staff of the Holy Cross Hospital desire to extend to their fellow-member, Dr. Edward LeCompte, their fullest measure of sympathy because of the bereavement he has sustained in the recent death of his mother.

It is with sincere regret, coupled with a complete realization of the futility of words in such a circumstance, that we note her passing at the end of a full and useful life. Yet it is with a cordial hope that the knowledge of our attitude may in a measure prove of some support to him at this time that we offer this expression of it to him as friend to friend.

The above resolution embodies the expression of that sympathy on the part of his staff associates to Dr. Edward LeCompte, due to the recent death of his mother. We are sure that in equal measure Doctor LeCompte may be assured of a like feeling throughout the body of the profession in Salt Lake or wherever he or she may have been known.

Salt Lake County Medical Society (M. M. Critchlow, secretary)—A regular meeting was held at the Commercial Club, Salt Lake City, Monday, November 29, 1926, called to order by President F. H. Raley. Thirty-nine members and four visitors were present.

Minutes of the previous meeting were read and accepted without correction.

J. A. Phipps read a paper on "Surgery of the Diabetic." He took up very thoroughly the preparation of the patient for operation and various procedures for the different complications of diabetes which he described in detail. The paper was very complete, giving special attention to the anesthetic to be used and the necessary instructions to patients of how to avoid infections. This

excellent paper was discussed by E. D. Hammond, G. W. Middleton, and A. A. Kerr.

The next paper was on "Physiotherapy" by J. U. Giesy. He gave a very interesting blackboard talk of the physics of electricity and light and the application of these principles to pathological conditions in the human economy and also their physiological effect on the human body. This paper was discussed by C. L. Shields and W. S. Keyting.

The Chair announced the committee appointed for the banquet in honor of the dentists: F. K. Root, chairman; E. Spencer Wright, L. J. Paul.

MEDICAL AND HEALTH AGENCY NEWS

The Forty-Fifth Course of popular medical lectures of the Stanford University Medical School will be given at Lane Hall, north side of Sacramento Street near Webster, San Francisco, on alternate Friday evenings at 8 o'clock, beginning January 14, 1927.

The lectures, to which all interested are cordially invited, are:

Friday evening, January 14, 1927—"Causes and Treatment of Hay Fever and Asthma," Dr. Samuel H. Hurwitz.

Friday evening, January 28, 1927—"The Role of Heredity in Disease," Prof. C. H. Danforth.

Friday evening, February 11, 1927—"The Relation of Dental Infection to Disease," Dr. John A. Marshall.

Friday evening, February 25, 1927—"The Psychology of Disease Symptoms," Prof. W. R. Miles.

Friday evening, March 11, 1927—"What About Irregular Teeth?" Dr. Fred Wolfsohn.

Friday evening, March 25, 1927—"The Influence of Good Postural Conditions on Health," Dr. Harry L. Langnecker.

The California Federation of Women's Clubs has been working throughout the state to cause every county which supports a county hospital to have therein:

1. (a) Children's wards; (b) children's contagious wards, where children may be properly cared for, where physicians may be sure of sterile surroundings and of expert nursing in the care of their little patients, where a moderate fee (not over \$2 per day) will be charged, the remainder of the upkeep to be met by the county by appropriations from county funds.

2. Maternity wards, where women may have their babies under aseptic conditions and under expert nursing; where the dangers of puerperal fever may be lessened, where physicians may be able to attend these patients in sterile quarters, with all the necessary appliances at hand in case of danger. The death rate in childbirth is very high, next to the tuberculosis rate. A moderate fee (not more than \$4 per day) is to be charged, the remainder to be made up by county funds.

In quiet maternity wards, away from home cares, a mother can rest for two weeks, returning home fully recovered, and ready to resume the care of older children and household duties, besides laying the foundation for future health.

3. There will be a teaching center in every county. That expert nurses and physicians be in charge, to teach and educate children and mothers in hygiene, and the simple laws of cleanliness, sunshine, and health. That these teaching centers in hospitals hold these classes at least twice a week, and more if their funds permit.

Alumni of the Medical Officers Training Camps at Camp Greenleaf and Fort Riley held a delightful reunion and banquet at the City Club, Los Angeles, on Armistice night.

The celebration was quite informal in character and was characterized by an abundance of good fellowship. Vivid narration of thrilling experiences on land and sea

by old chums and comrades in arms made an impression that will not soon be forgotten.

During our term of service at Greenleaf and Fort Riley as "buck privates" (and poor ones at that) many of us longed for the day to come when the emergency would be over and as free-born American citizens we could say in powerful and picturesque language just what we thought of some of our instructors.

This reunion gave us that opportunity, and the fearless criticism of men and measures proved a source of unalloyed joy and hilarity. A fine and much patronized hotel in Chattanooga whose early fortune was alleged to have been linked in some way with the Wine of Cardui was also a target of good-natured joshing.

A more sober and serious note was sounded after the bubbling effervescence evoked by the mingling of many friends whom we had not seen or heard from since leaving the training camp had subsided.

It was unanimously conceded that, in spite of abundant trials and tribulations incident to camp life, our brief period of service with Uncle Sam's Army had been a distinct benefit and blessing.

The noble spirit of self-sacrifice and service universally displayed by the medical profession during the war is a happy reminiscence that will never die.

A resolution to send cordial greetings to Colonel E. L. Munson was carried unanimously and with hearty acclamation. For some time Colonel Munson was the commanding officer at Camp Greenleaf, and for a long period was in charge of many thousand medical officers.

All present united in the opinion that the celebration in every sense had been such a striking success that it ought to be made an annual event, and held on the night before Armistice Day.

Dr. John C. Copeland, 301 Story Building, 610 South Broadway, Los Angeles, California, Captain Medical Reserve Corps, was made permanent secretary, and he would be glad to have the names and addresses of all former Greenleaf and Fort Riley men who have not been enrolled.

Saint Joseph's Hospital Staff Hears Doctor Rixford on European Clinics—Emmet Rixford spoke at Saint Joseph's Hospital of San Francisco December 8 on "Some European Clinics" and showed illuminated views of his subject. The trip was through the principal surgical centers of Italy, Germany, France, Switzerland, and other countries of the Old World and interesting notes of the places and personages seen were given. The speaker stressed the methods of doing partial gastrectomy, which were demonstrated by clever drawings, paper patterns and the use of Shoemaker's and other new instruments secured on this survey made by the American Society of Clinical Surgery.

The following is the program of January 12: "Artificial (Prosthetic) Nose," Roy Parkinson; "Women's Role in Medical Sciences," Adeline Cerighino Williams; "Hospital Observations in Eastern Travels," W. T. Cummins; and "Absent Left Kidney, Obliterated Right Renal Pelvis and Anuria," A. S. Musante.

Saint Luke's Hospital—The regular monthly meeting of Saint Luke's Hospital Clinical Club was held Thursday, December 2, 1926, with Arthur C. Gibson presenting the subject of the day, "Acute Otitis Media."

Outstanding points in his discussion were: The diagnosis of otitis media is not always simple, particularly in children, as the drum may have lost its redness and become gray and the bulging may have nearly disappeared before examination is made. The short process and the dirty color with the continued symptomatology which in most cases is (1) pain; (2) increased temperature; (3) general malaise, which may even go as far as delirium, particularly in children, and be confounded with an early meningitis; and (4) frequently nausea and vomiting are of great value in this diagnosis.

Physical findings depend upon the length of time from onset at which they are seen, the drum early showing a redness, later changing to a more congested, darker color, signifying pus behind. In another twenty-four to forty-eight hours the pus is generally liberated if the drum does

not rupture or does not open into the mastoid through the mastoid antrum. The prognosis of the cases that rupture is worse than the prognosis of the case that is opened early, because the pressure has been sufficient to cause a necrosis of the drum and has undoubtedly forced infection into the mastoid antrum from where it spreads to the mastoid. Doctor Gibson's own experience has been that by opening the mastoid early, say in seven to ten days from onset of acute otitis media, the best results are obtained; also he is convinced that there is some therapeutic value in x-raying early otitis media, for unquestionably they do seem to improve.

In the matter of treatment his experience has shown him that in cases where paracentesis is done early the least number of mastoids develop. He has never seen any ill effects from opening a drum (careful paracenteses being presupposed), and he thinks it conservative to err on the side of frequent paracenteses rather than to take a chance that the ear will quiet.

Numerous solutions have been used, but the ideal treatment is gentle treatment with dry wipes, the use of the wipe depending, of course, upon the intelligence of the patient's family. The dry wipe should be used every hour to prevent a large amount of pus remaining in the canal. Next to the dry wipe, irrigation with normal saline with a dram of soda bicarbonate to the pint, at body temperature, is good. It has the effect of dissolving the pus and getting rid of the material in the canal. Also ice, forced fluids, and general catharsis are parts of the ideal treatment.

As to complications, mastoiditis is the principal one and should be watched for carefully.

Mount Zion Hospital Staff Conferences—Subjects: erythema nodosum, myasthenia gravis, and drainage in peritonitis.

Erythema nodosum. Discussion opened by Joseph Sampson: The interesting part of this case is the fact that the child had a definite focus of infection, it became generally toxic and developed the condition of erythema nodosum. It is an infrequent type of case, and if not seen at the very height of the disease cannot be recognized. These lesions usually occur in female children, sometimes with rheumatic symptoms. This patient had fever, followed by semifluctuating, inflammatory processes appearing on the right leg. The diagnosis of erythema nodosum was made. However, it was felt that this might be cellulitis, so an incision was made.

F. I. Harris: This is certainly an interesting patient, from the point of view of definite diagnosis. The incision seemed to be justifiable. A nodule so definite in outline would give one the impression of cellulitis, as there were no other symmetrical areas on any other part of the body. Just from the rise in temperature, one would not believe it was entirely a blood stream infection which was localizing in the leg.

Fred Firestone: There are some instances on record of healthy patients having had erythema nodosum. Rheumatism is prevalent in the fall, erythema nodosum in the spring. Another interesting fact is brought out by Stock of the Mayo Clinic that tuberculosis is often definitely related to erythema nodosum.

Myasthenia gravis. Discussion opened by M. H. Hirschfeld: Myasthenia gravis was not taken as a clinical entity, but rather as a rare observation prior to the time of Erb in 1878. He gives the first clear picture of the disease in the reaction of the muscles and nerves. But it was not until ten years later that it was really brought out definitely by Oppenheim, following a case of exitus. More knowledge of this disease developed in the two or three decades that followed, and some new cases were reported. The majority of cases progress until there is a weakness of the respiratory muscles sometimes as long after as ten to fifteen years. There is no sex predominance known. One of the first things to be considered is to rule out the existence of syphilis. One of the interesting things in this disease is the peculiar reaction to electric currents caused by the muscular degeneration, giving evidence of fatigability of the muscles. After repeated stimulations the reactions gradually disappear,

unlike those in normal muscles. Symptoms are more marked later in the day rather than in the morning. Myasthenia gravis is indeed one condition that awakens medical curiosity, as it is often times incorrectly diagnosed as hysteria. There are two schools which can be followed: (1) Followers of Babinski—diagnose hysteria when symptoms can be only voluntarily produced. (2) School of Hirsch—diagnosis only when there are marked physical or circulatory changes present.

An interesting case was shown at the meeting and the electrical phenomena demonstrated.

Drainage in peritonitis. F. I. Harris: The trouble is we drain too much. In cases of peritonitis in the great majority of patients we can get by without draining and at the same time improve the patient's chances of getting well. It is a fact that if drains are inserted they are completely walled off within thirty-six to forty-eight hours. So that drainage of the whole peritoneal cavity is quite impossible. If one does insert drains it should be to drain a small region. Drainage has been some aid in combating toxemia. My policy has been in cases of acute appendicitis is to get in and get out as quickly as possible. If there is a good deal of necrotic material present, I may insert a drain in the hopes of draining off some of this material. Oftentimes where the tube has been inserted the area surrounding it becomes infected, necessitating the reopening of the wound.

Mast Wolfson: Drainage is really meant to direct off any excess fluid. A drain really causes a reversal of the lymph flow. There are several ways of removing the drains. Some remove the drain completely on the fourth day postoperative; while others believe in twisting the tube a little each day after the fourth day so that it is out by the seventh day postoperative. Care must be used in relieving any sealed off abscess at the bottom of the tract. In instances where tubercular peritonitis is known to be present drains should never be used, but rather the abdomen should be sewed up tightly to prevent a sinus from developing.

A. Epstein: Less drainage is being used in cases of prostatectomy. The general treatment that does exist is to pack the wound with gauze and occasionally one tube is inserted which is removed in twenty-four hours.

J. B. Levison stated that drainage of the peritoneal cavity is not possible in peritonitis which can be divided in two groups: (1) acute general peritonitis with plastic exudate of streptococcic origin; (2) localized acute peritonitis, due to the colon bacillus. In this type there is turbid liquid exudate, rich in antibodies. In the first group drainage is not possible as the drain is immediately surrounded with plastic exudate. This has been constantly shown at autopsy. In the second group the exudate is liquid and rich in protective substances, and drainage removes these bodies and should not be employed. Drainage is indicated only where the stump of the appendix is gangrenous and cannot be entirely removed or in abscess formation, but here drainage does not take place but the area is walled off so that a tract is formed aiding the evacuation of infected substances.

Medical Reserve Corps, Ninth Corps Area—The headquarters of the Ninth Corps Area has called upon all members of the National Guard in its component states to actively assist in the enrollment of additional officers for the Medical Reserve Corps.

It is unusual for one of the components of the national army to be called upon to aid in the organization of another component, but the conditions in this case are themselves unusual.

The entire hospitalization service in national emergency of all the three components of the Army of the United States, included in the Regular Army, the National Guard, and the Organized Reserves—has been turned over to the medical profession of the nation, that is, the Medical Reserve Corps.

The medical department of the National Guard is a divisional service only, looking after troops in the field in respect to the preservation of health, and to the temporary handling of casualties of battle and brief temporary emergency. Any member of the National Guard who requires prolonged treatment or professional care

in a hospital must be transferred to an appropriate relief unit functioned by the Medical Reserve Corps in order to secure it.

The National Guard may be able to function independently without the active co-ordinating aid of various other components of the army of the United States; but without the direct co-operation of the Medical Reserve Corps it cannot in time of war exist.

There are many physicians in civil life who are not in position to assume the obligations connected with the National Guard, but who would be glad to enroll themselves in advance to meet any national emergency. And there are also many who are interested only in such professional work as is found in hospitals. It is these two classes of physicians in which the National Guard will especially interest themselves in respect to their enrollments in the Medical Reserve Corps.

Doubtless many physicians who are in family attendance on members of the National Guard will be asked by them to enroll in the Medical Reserve Corps, with a view to having such professional relations continued in time of war.

It is hoped that those who are so approached will be receptive to the request that they accept a commission in the Medical Reserve Corps, with a view to assignment to its hospital units.

CALIFORNIA BOARD OF MEDICAL EXAMINERS

By C. B. PINKHAM, M. D., *Secretary*

A most interesting and instructive resumé of legislation throughout the United States relating to annual registration of physicians and surgeons appeared in the Bulletin of the American Medical Association of November, 1926, having been compiled by W. C. Woodward, M. D., executive secretary of the Bureau of Legal Medicine and Legislation, A. M. A.

A recent circular announces "a thorough course of instruction is given every month" at the College of Electronic Medicine, 1547 Jackson Street, San Francisco. The fee for instruction is \$100, and "the cost of the apparatus" totals \$722.50. "A certificate of attendance will be issued to those who successfully pass the examination at the close of the course."

According to the San Francisco Examiner of November 21, 1926, the supervisors were requested to "enact ordinances regulating the personnel of beauty shops and providing rules under which such enterprises may be operated." Secretary E. P. Miller of the "Beauty Operators' Association" is said to have furnished a proposed draft of an ordinance laying down a rigid sanitary code for observance and prescribing steps "to protect the health and facial attractions of patrons of beauty shops, cosmeticians, and cosmetologists."

Graduates of the "College of Sagliffology" are threatened with annihilation when the diplomas of the beauty culture and cosmetician colleges charge the coming legislature. What with the Dennis College of Beauty Culture and its gamut of conferred degrees—ranging from doctor of beauty culture to doctor of beauty science—its purposes said to permit infringement on the barbers' prerogatives; the Jean Academy of Beauty Culture, the Leader College of Beauty Culture, the Moler Beauty College, and the National School of Cosmeticians affiliated with the Marinello system? Rumor prepares the way for a hectic legislative campaign backed by a large fund devoted to a proposed bill which, rumor relates, has for its purpose the licensing of so-called beauty specialists, cosmeticians, etc., permitting them to do about everything, and particularly permitting the use of poisonous drugs in so-called face-peel preparations despite the fact that many deaths are reported in California said to have resulted from local application of so-called "face peels."

James A. Biglow, a colored night watchman, recently reported as having operated an office in Los Angeles which, according to his sign, was a "suboffice of heaven," pleaded guilty on November 30, 1926, to a charge of violation of the Medical Practice Act and was sentenced

to serve 180 days in the city jail, the sentence being suspended for a period of two years. According to his sign, he guaranteed to cure, among other ailments, "stone in liver."

Frederick J. Cook, naturopath, whose name appears in the classified list of the Los Angeles telephone directory as an M. D., is reported to have recently admitted using the suffix "M. D." in his application to the Prohibition Department. He claims a diploma dated in 1916 from the notorious Pacific Medical College whose credentials were featured prominently in the diploma mill exposé.

Homer B. Skinner, D. C., of Oroville, was recently appointed to a vacancy on the State Board of Chiropractic Examiners, according to the San Francisco "Examiner" of November 10, 1926.

The Los Angeles "Examiner" of November 21, 1926, relates the election of officers of the State Board of Chiropractic Examiners as follows: Clement J. Redmond, Los Angeles, president; Vernon Malcolm, San Francisco, vice-president; and James Compton, Sacramento, secretary.

According to the San Francisco "Call" of December 7, 1926, Attorney-General Webb has recently ruled "that if an eastern firm is selling ready-to-wear glasses in California, as charged by the State Board of Optometry, it is violating the law"; further commenting that "if you wear glasses that do not fit, you not only are not helping, but you injure your eyesight more than if you had no glasses at all."

John Dare, drugless practitioner of San Francisco, was arrested on November 13, 1926, on a charge of annoying small girls on a street car, according to the San Francisco "Examiner" of November 14, 1926.

Madame Jean de Desley, a beauty expert, was recently found not guilty of violation of the Medical Practice Act after jury trial in Los Angeles. "The defendant explained her method of operation as 'deep face peel,' and that no surgical or medicinal steps are included."—Los Angeles "Examiner," November 23, 1926.

Our special agent reports: "The testimony of three of our witnesses was, in substance, that they went to defendant for a face peel and that they were not sick or afflicted at the time, but as the treatment proceeded the face became sore and inflamed and eyes swelled almost shut, pus running from the face when the adhesive plaster was removed, and that the defendant then treated the sore and inflamed condition of their faces with powders, salves, unguentine, etc., and dropped some kind of liquid into their eyes which were in some cases swollen almost shut."

This method of treatment is somewhat parallel to the reported experience of Sallie Lytton, deceased, who, according to our records, applied a face bleach followed by cucumber lotion said to have been manufactured by Fannie Briggs Carr, Inc., and shortly after is alleged to have suffered intense pain in the face, neck, and other parts to which the application had been made, her neck and face from the breast to her hair being frightfully burned; and as a result she was unable to open her eyes and could only be given a little liquid food through a tube. Later Miss Lytton died.

The Bureau of Pure Food, State Board of Health, reported information from the general manager of the Fannie Briggs Carr firm discloses a large percentage of corrosive sublimate in the preparation. We are informed by the State Board of Pharmacy that "it was not alone the use of the bichloride face bleach that helped to cause the trouble, but also the use of the strong carbolic acid solution," it being further related that although the paper carton containing the product does not show it to be poisonous, yet the label on the bottle in said container is alleged to give an antidote. T. Floyd Brown, M. D., in an article printed in "California, Outdoors and In," September, 1926, relates: "It would seem that only legislative action will stop this death 'skin 'em alive until dead' practice and protect a foolish public."

According to the Visalia "Delta" of November 9, 1926, L. S. White and Helen Ford of Lindsay, Dorothy Eaton of Visalia, and Mrs. Florence Gessler of Porterville, all

said to be operating I-on-a-co offices, were charged with violation of the Medical Practice Act.

George E. Ebright, San Francisco physician and surgeon, was reappointed to the State Board of Health yesterday by Governor Richardson, according to dispatches from Sacramento. Doctor Ebright, who has had similar commissions from three governors, is at present president of the Health Board. He has practiced for many years in San Francisco and is assistant professor of clinical medicine at the University of California. During his long membership on the State Board of Health Doctor Ebright has been responsible for great advances in the conquest of epidemics.—San Francisco "Examiner," November 17, 1926.

According to the Glendale "News" of November 5, 1926, J. K. Gilkerson, D. C., tendered his resignation as a member of the Chiropractic Board, giving as his reason "that the duties of the board, the preparation and correcting of the examination papers of candidates for licenses to practice in this state encroach upon the time he feels should be devoted to his practice."

Davis Grisso, chief physician of the Bohanon Cancer Institute, Berkeley, was arrested yesterday on the complaint of L. S. Cooper, charged with practicing medicine without a license. . . . (Oakland "Times," November 24, 1926). Grisso's reciprocity license to practice in the state of California was revoked November 18, 1923, and we are informed by our Chief Counsel Bianchi that Grisso has no right to practice in the state of California.

The State Supreme Court today denied the petition of T. Wah Hing, local Chinese herb doctor, for a hearing on the recent decision of the Third District Court of Appeal, which upheld Hing's conviction in the Sacramento County Superior Court on a charge of violating the Medical Practice Act.—Sacramento "Bee," November 10, 1926.

On November 15, 1925, T. Wah Hing was found guilty of violation of the Medical Practice Act and sentenced to ninety days and to pay a fine of \$600. The legal report of October, 1926 (page 3675), shows the entry "held by federal grand jury on same charge."

The activities of those promoting Wilshire's I-on-a-co have given rise to many complaints from various sections of the state that the Medical Practice Act is being violated. It is reported that "this great cure-all (I-on-a-co) which is being advertised and sold so extensively is nothing but a coil of insulated copper wire with a cover and an electrical connection by which it may be attached to the electric light plug or socket. An alternating current of electricity being passed through the wire makes a magnetic field in which the patient is placed by putting the coil around him." The apparatus is said to be simply a solenoid, a principle well known in electrotherapy and described in books on that subject for many years. The actual cost of manufacture is alleged to be less than \$12, and the apparatus sells for \$65. The profits easily account for the extensive advertising. Rival appliances are being advertised under the name of "Magnetone," "Restoro," and other euphonious titles.

G. D. Johnson, alleged Stockton druggist, mentioned in prior "News Items," was found guilty of violation of the Medical Practice Act on November 18, 1926, and sentenced to pay a fine of \$500 and serve five months in the county jail, which sentence was appealed according to the report of our special agent.

Joseph S. Johnson, recently reported as violating the Medical Practice Act at Fort Bragg, California, and alleged to be holding himself out as a chiropractor, disappeared before our investigator arrived, it being reported that he had been recently charged with vagrancy in connection with his alleged treatment of young girls in connection with his practice, "it being understood that a charge of violation of the Medical Practice Act would not be pressed provided Johnson left Fort Bragg."

Harris Klein, Fulton Street physician, will have to go to the police court to explain away two charges lodged

against him yesterday morning. They are: failing to stop to render assistance after an accident, and driving an auto while drunk (San Francisco "Examiner," November 29, 1926). Doctor Klein denies the charges.

F. K. Lord, Modesto physician, must spend a sentence in the Stanislaus County Jail for prescribing an excessive amount of morphin to a drug addict, the California Supreme Court ruled yesterday. In denying Doctor Lord's petition for a writ of habeas corpus the court upheld the decision of the Justices' Court in Modesto and the Superior Court of Stanislaus County. . . . (San Francisco "Examiner," December 12, 1926). Doctor Lord's license to practice in the state of California was suspended for one year on March 9, 1926. Doctor Lord appealed to the courts, and the case is still pending for decision.

Carl McPheeters, M. D., Fresno physician, was recently reported indicted by a federal grand jury on a charge of sending obscene matter through the mails. According to the Fresno "Bee," November 17, 1926, his trial was scheduled to open November 18, 1926, before United States Judge Paul J. McCormick.

Sakaji Mizimo, Japanese barber of Aroma, Kings County, is reported to display on the walls of his office a typewritten diploma headed "Certificate of Award, Professor H. R. Seto, Massage Treatment College." It is further reported that Mizimo displays a sign "Japanese-Swedish Massage (whatever that combination may mean), Chiropractic and Thermic Treatments."

It is reported that a nurse by the name of Agnes Martin, formerly employed in a state hospital at Rockville, Indiana, and now residing in Detroit, Michigan, is the individual who, using the name of Alma Stevens Pennington, M. D., was recently alleged to have attempted to secure a Michigan license by impersonating Doctor Pennington, submitting an application based upon Doctor Pennington's credentials.

Robert W. Renwick, M. D., whose license was revoked by the Board of Medical Examiners, March 11, 1926, is reported as practicing chiropody in a beauty shop in Los Angeles. Our special agent reports that "although the license of Robert W. Renwick was revoked it would be useless to try to get any definite action against him in the local courts for practicing without a license while his case is pending on appeal. . . ." This is another instance where after revocation of a license the individual continues to practice, protected by a pending court action which cannot be expeditiously disposed of owing to the crowded condition of the court calendars. Our attorney reports that possibly two years may elapse before final disposition.

According to the San Francisco "Examiner" of November 13, 1926, "Dr. William S. Rogers, San Francisco physician," charged with speeding at Burlingame, was ordered to appear before Judge Joseph Gaffey following the presentation of an affidavit "stating that he was on an emergency call when stopped by a motorcycle officer." The records of the Board of Medical Examiners do not show anyone by the name of William S. Rogers as the holder of any form of certificate entitling him to practice in this state.

B. A. Seelau, charged by an agent of the Chiropractic Board with practicing without a license, won a dismissal before Judge Charles D. Wallace of Long Beach on the ground of insufficient evidence, according to the Long Beach "Press-Telegram" of November 3, 1926.

According to recent reports, Arthur Silva, formerly of Oakland, was arraigned before Justice J. M. McClellan of Hanford on November 5, 1926, on a charge of violation of the Medical Practice Act. "A quantity of herbs, electrical appliances, and elixirs, it is stated, were seized. Complaint had recently been made to the district attorney's office by owners of radio receiving sets in that part of town that Silva's static machine spoiled reception on their sets." Radio owners in other sections of the state have filed similar complaints regarding alleged violators of the law.

Arvid C. Silverberg, Seattle physician, released from

Alcatraz Island, where he had been serving time since January 9 on his conviction as a draft evader, faces deportation to Finland, according to the Oakland "Tribune" of November 9, 1926.

Owing to the numerous complaints regarding alleged tuberculosis cures and the pathetic circumstances related by those who have come in contact with the unlicensed promoters of these alleged cures, legislative enactment which will curb these unlicensed promoters seems timely. Prosecution under the Medical Practice Act has not been effective in stopping this ghoulis practice.

Announcement that Dr. D. C. Williams, inspector of state institutions, had resigned was made yesterday by E. G. Twogood, acting director of the State Department of Institutions. Doctor Williams, whose home is in Le Grand, Merced County, was appointed to the post in January of this year. He was a former member of the Assembly.—Sacramento "Bee," December 9, 1926.

Charles Henry Wood, D.C., president of the Los Angeles College of Chiropractic, whose license was recently revoked by the Board of Chiropractic Examiners on the charge of alleged falsifications of his credentials, threatens to test the legality of the Chiropractic Initiative Act by his application to the Supreme Court for a writ of probation, asking that the lower court be prohibited from conducting a hearing, Wood contending that the law does not give the Chiropractic Board power to act in a judicial capacity.

READERS' FORUM

San Jose, Calif., December 15, 1926.

Dear Editor: An official expression from you as editor of the magazine, CALIFORNIA AND WESTERN MEDICINE, in answer to the following questions will be greatly appreciated:

1. Is the administration of any anesthetic by graduate or student nurses, under the direction of a graduate and licensed physician or surgeon who may be operating at the same time, ethically allowable by the standards of the medical profession?

2. According to the medical authorities and the laws of the state of California, does the administration of an anesthetic by a graduate student nurse under the same conditions legally obligate the hospital employing the nurse in case of death of the patient in anesthesia?

3. Under conditions as outlined in question one, to what extent do your former answers apply to the administration of small quantities of nitrous oxide during childbirth?

SAN JOSE HOSPITAL.

R. D. Brisbane, Manager.

Answer—All of these questions have been repeatedly discussed editorially and otherwise in CALIFORNIA AND WESTERN MEDICINE; still we continue to receive many inquiries.

Some years ago the House of Delegates of the California Medical Association unanimously passed a resolution declaring the giving of an anesthetic by any but a licensed physician, surgeon, or dentist as unethical. This, on the ground that anesthesiology is the practice of medicine quite as much as is surgery.

The Attorney-General of California and the attorney for the California Board of Medical Examiners have both ruled that the giving of an anesthetic is the practice of medicine or dentistry and that such action by one not licensed to so practice is illegal. The matter has not to my knowledge been tested in the California courts, but it has been elsewhere, and in every instance with which I am familiar, this ruling has been upheld. Both hospitals and surgeons have been held legally liable for accidents to patients anesthetized by those not licensed to practice medicine, surgery or dentistry, and it may be con-

fidently predicted that California courts will similarly hold when the question gets before them.

The answer to the last question is that neither the character nor amount of anesthetic administered is likely to have anything to do with legal or ethical responsibility.

San Bernardino, Calif., November, 17, 1926.

Dear Editor: Will you kindly publish the following and make your comments attached to it, and answer the queries below:

Case 1. A man 72 years of age had a one-fourth inch impetiginous ulcer one inch below the left eye, of a few months' duration. Acting upon his own initiative he put a so-called cancer cure on it, eating a large hole in his cheek and resulting in enucleation of the eye. Perfect healing resulted. 1925.

Case 2. A widow about 40 years old in September, 1926, had a similar three-fourth inch ulcer about one and one-half inches below the center of the right clavicle of two weeks' duration, and also a one-fourth inch ulcer on the back of the left hand and one of the same size about one inch below the left eye. A member of her family applied a so-called cancer cure to each of these ulcers, using them repeatedly until the subclavicular ulcer was about six inches in diameter, and the two others about two inches in diameter. On November 2, I was called to see the woman and found the above. She was in a very toxic condition, suffering greatly from pain, and evidently could not have survived much longer. I had her removed at once to the County Hospital, and put her in competent hands. At the hospital they cleaned the necrosed tissue out and gave her a chance for her life. The family, however, took her away from the hospital on the fourth. I was not called afterward, but took occasion to see that a doctor was sent to see her. I saw her in the beginning and also after the first application of the cancer cure, and told them repeatedly that it was not cancer and to put on no more of the cancer cure.

Queries—Is there any authentic evidence that a cancer was ever cured by a caustic paste?

Is a man who is not authorized to practice medicine under the laws of the state any right to use such a dangerous treatment even to a member of his family?

Should not the public be informed as to the merits of this so-called cancer treatment?

HENRY O. BEESON.

Answer prepared by Dr. A. R. Kilgore: There seems to be little doubt that some cancers of the skin have been cured by caustic pastes. The cure of cancer depends upon the removal or the destruction of every cancer cell, and in the case of growths which have not metastasized (e. g., rodent ulcers) if a sufficient amount of a sufficiently strong caustic be used to kill all the cells such growth will be cured.

There are perfectly good reasons for not using pastes, however.

1. Just such results as described are sometimes obtained. The action of a caustic, once applied, is not well under control.

2. Application of a caustic to a growth which has already metastasized to the regional lymph glands will certainly do the metastases no good.

3. If insufficient caustic be applied to kill every cell, the live cells left may be stimulated to much more active growth and metastasis.

As far as we know, it is not possible to punish legally an individual who purchases a cancer paste and uses it on one of his family without pay, just as it seems impossible to bring action against a mother who gives her child a dose of castor oil in the early stages of acute appendicitis.

The American Society for the Control of Cancer is making every effort to educate the public about cancer and the importance of securing intelligent treatment. These great educational movements take time and money, but eventual success in greater or less degree seems assured. The more help every physician can give in talking with his patients the quicker an adequate public knowledge of cancer will come.

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Cardioesophageal Relaxation—In studies of the gastrointestinal tract made during the last three years, S. A. Robins and I. R. Jankelson, Boston (*Journal A. M. A.*), have noticed under the fluoroscope a reflux of the barium meal from the stomach into the esophagus. As a result of this observation they have attempted to investigate this type of case with particular reference to its possible etiology and symptomatology. At first it was observed fluoroscopically only, and with the patient in the prone position. In studying old plates they found some of them with the lower portion of the esophageal wall outlined with barium. Since attention has been called to it they have found this condition in a larger percentage of cases, now 4.6 per cent, and have succeeded in demonstrating it on plates. One hundred and three cases of cardioesophageal relaxation were studied. This condition is said to be not a clinical entity, but one that is found in a great variety of pathologic cases or in cases without any demonstrable lesions. It must be differentiated from other lesions in or about the lower esophagus, such as hernia, pouch or cardiospasm. Heartburn is not caused by stomach contents escaping into the lower esophagus. A definite diagnosis of cardioesophageal relaxation can be made only by means of the roentgen rays.

It is quite evident that the medical cults are slacking up, not only in numbers, but in favor. The people will stand for a new method of treatment for a while. Some of them can be relied upon to patronize the irregulars all the time, but evidently the cult, if it has any real stability, will hold its own, but if once it is uncovered and found to be deficient or mystic or irregular or deceitful, it soon begins to wane, and no power on earth can keep it up after that. For instance, we hear nothing more about the Abrams treatment.—The Journal-Lancet.

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Ocular Disease Occurring in Course of Nondysenteric Amebiasis—No bacterial causation can be found in a definite proportion of cases of chronic, recurring and intractable ocular inflammations and conditions which arise in association with gastrointestinal symptoms. Iridocyclitis, episcleritis, primary and secondary glaucoma, choroiditis and conjunctivitis, are chief among these conditions. Lloyd Mills, Los Angeles (Journal A. M. A.), has found that a large proportion of these chronic ocular conditions, unyielding to local treatment, are found associated with heavy intestinal infections of protozoa and flagellate of proved tissue-invasive capacity and nearly always with an accompanying chronic colitis. The sole addition of effective antiamebic treatment to the local therapy has resulted in the relief, arrest or cure of most of the inflammatory ocular conditions of this type so treated, and gives ground to the belief that chronic disease in any of the ocular structures may arise directly or indirectly from the known congestive and ulcerative changes which exist in these cases of intestinal parasitism. The symptomatic relief which follows the use of emetin in some cases, of amebic iritis is enough to sug-

gest its possible application to iritis of other origins. Exacerbations of protozoan activity in the abdominal viscera frequently are preluded by functional discomfort of the eyes and a return of ocular inflammation. This related periodicity of abdominal discomfort and exacerbations of chronic ocular disease, noted particularly in the conditions of iridocyclitis and secondary and primary glaucoma, many of which are now recognized by means of the slit lamp as essentially exudative, suggests a hitherto unrecognized intestinal origin in many of these cases. Sixteen of the eighty-eight patients studied, 18 per cent, had lost one eye from exudative glaucoma which forced enucleation. All of these cases showed gross abdominal pathologic changes with heavy infections of *Endameba dysenteriae*, with or without flagellates. Inflammations of the external ocular coats, conjunctivitis, corneal ulcers, episcleritis and possibly some forms of keratitis more often occur in association with mixed infections in which *Chilomastix*, *Trichomonas*, *Craigia*, and *Giardia* predominate. The insidious exudation which accompanies "quiet iritis" of protozoan association has the final form of a dense, tough membrane which is comparable to the jacksonian membrane about the cecum and colon and believed by many to arise from protozoan activity. The formation of this membrane often is arrested by antiamebic treatment, which should always be a preliminary to attempted iridectomy in these cases. A specific recurrent iritis, called "periodic ophthalmia," exists in horses. No bacterial causation has ever been proved in this condition, which appears to parallel these cases of amebic iritis. Recently, protozoa have been found in the feces of such animals, but no etiologic studies from this angle have as yet been made. In Mills' opinion any case of chronic, recurrent or intractable ocular inflammation or disease, in which the elimination of all possible foci of bacterial infection and correction of diet brings no cure, should be considered, until proved to the contrary, as a case of parasitic infection of the intestine and should be treated as such forthwith. The clinical improvement which follows antiamebic treatment will often give the conclusive evidence when adequate laboratory facilities and training for the correct identification of intestinal parasites are lacking.

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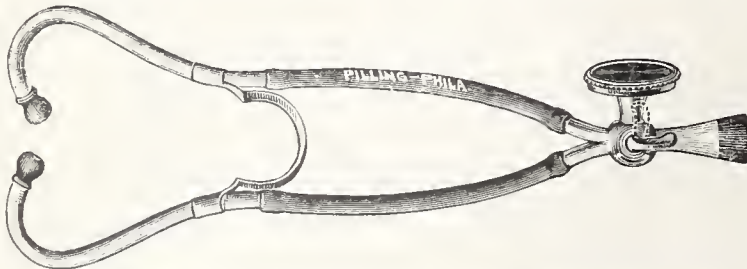
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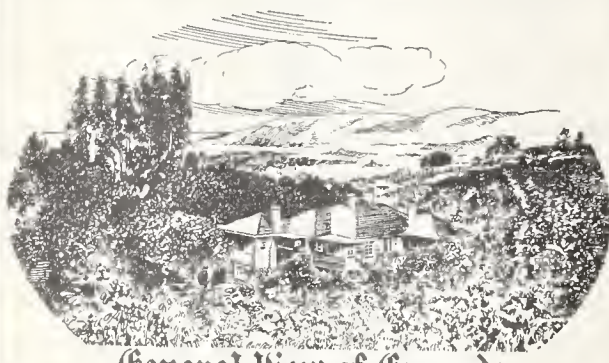
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Pneumonia from Public Health Point of View—
C. J. Vaux, Pittsburgh (*Journal A. M. A.*), describes the steps taken by the Pittsburgh Department of Health since April, 1924, in the prevention of pneumonia. The death rate for the first eleven months of 1923 was 319 per hundred thousand. For the same period in 1926 it was 168. In Pittsburgh the regulation covering reports of cases of pneumonia is: "Pneumonias (all forms) are reportable diseases in the city of Pittsburgh; specify (a) lobar pneumonia; (b) bronchopneumonia; (c) pneumonia complicating influenza; (d) pneumonia complicating other communicable diseases; (e) all other pneumonias, as traumatic, anesthetic, senile, etc.; specify whether lobar pneumonia or bronchopneumonia is all of the above primary conditions." Actual quarantine in certain types of cases is optional with the department of public health; also, the quarantine regulation is a modified quarantine, as follows: "Modified quarantine will be enforced in all cases of pneumonia except that under the classification e ('all other pneumonias, as traumatic, anesthetic, senile, etc.') may be quarantined at the option of the department of public health. This modified quarantine will consist of placarding, isolation of the patient, prohibition of all visitors, but no restrictions on other members of the household, including school children, provided isolation is complete and instructions from the department of public health are properly carried out. No minimum number of quarantine days specified, the quarantine period being until recovery or death of patient." Complete sanitary cleaning of the premises is required before release, but when this is accomplished thoroughly following the physician's report of recovery quarantine release is made at once. In a fatal case, after sanitary cleaning, no funeral restrictions are made. Regulations governing pneumococcus carriers or laboratory release regulations were not incorporated. There has not been a single complaint regarding the pneumonia quarantine regulation by either a lay citizen or a physician since it was put into effect, April 1, 1924.



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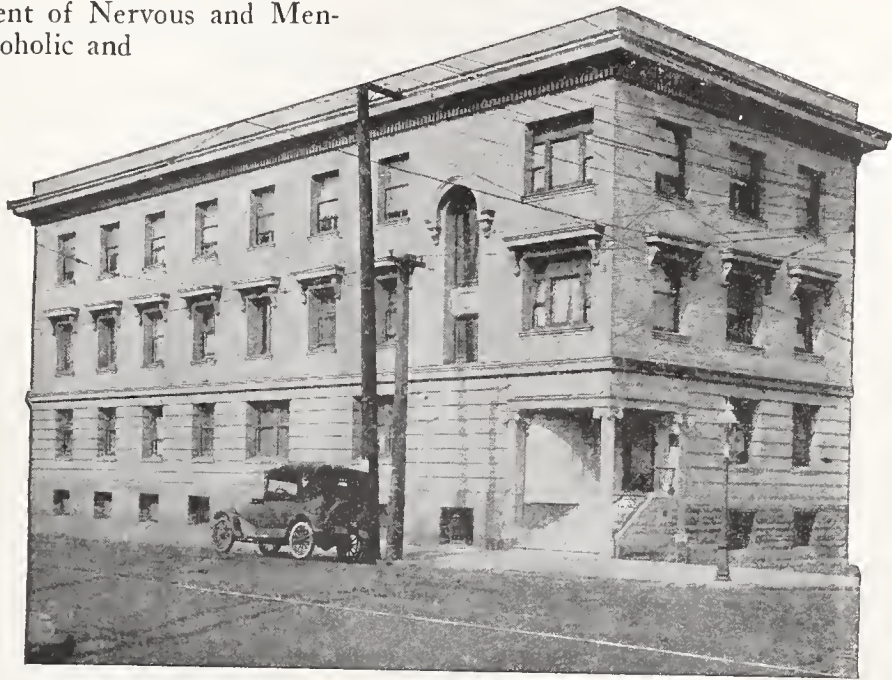
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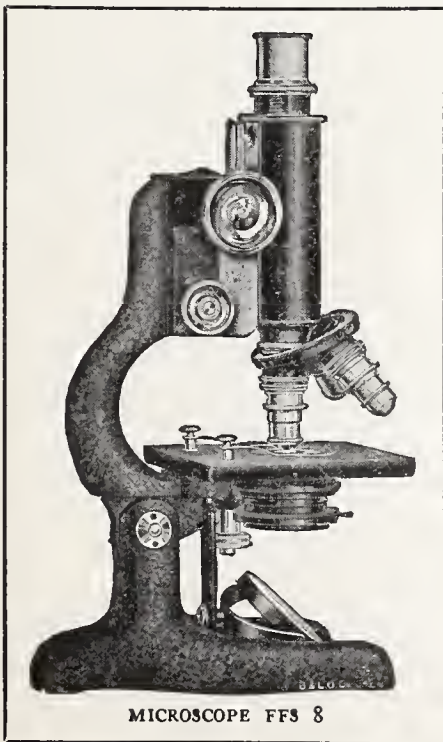
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Breast-Feeding Problems: I. Maternal—To overcome the mental hazards of motherhood regarding breast feeding, C. Ulysses Moore and H. G. Dennis, Portland, Oregon (*Journal A. M. A.*), insist that physicians must stress the fact that every mother who can care for her baby can nurse it. The daily health routine of the lactating mother needs more careful study and regulation by the physician. The amino-acid and vitamin B content of the diet require special attention. Experimentally, a milk diet is very inadequate during this period. Abnormal constitutional conditions including contagious disease in the mother may necessitate artificial feeding for a time, but the glands should be kept active by manual expression so that breast feeding may be resumed at the earliest possible moment. Open tuberculosis is the only absolute indication for weaning. Premature weaning is at present too frequently the result of remediable conditions in the mammary glands. Breasts and nipples deserve a complete examination, including inspection, palpation, and milk expression. Nipple muscle hypertrophy and hyper-tonicity are curable. Aseptic care of the nipples, together with the routine use of nipple aerators, prevent infections, fissures and mastitis. Aerators evaginate inverted nipples and permit the necessary open-air treatment. The cancer bugaboo as an excuse for avoiding nursing or manual expression is refuted by experience and by statistics. Insufficient milk supply is the most common problem in breast feeding. This problem is best solved by manual expression, the technic of which varies with the type of breast. Proper expression assures success.

Otitic Meningitis—This report by Wells P. Eagleton, Newark, New Jersey (*Journal A. M. A.*), is based on thirty-three consecutive cases of meningitis, with ten operative and one spontaneous recovery. Ten patients were not operated on because they were in a terminal stage when first seen. Thirteen postmortems were obtained from the twenty-two deaths. All cases presented the clinical picture of meningitis; and the condition found at operation warranted the diagnosis of septic meningitis, which if not surgically attacked would have ended fatally.



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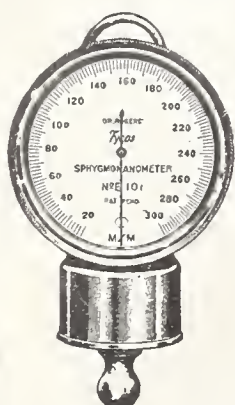
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Oxygen Lack and Cardiac Output—Studies concerning the effects of hemorrhage, anemia and anoxemia on the minute cardiac output of healthy dogs have been made by Tinsley Randolph Harrison and Alfred Blalock, Nashville, Tennessee (*Journal A. M. A.*). Their observations confirm those of Liljestrand and Stenstrom: In un-narcotized dogs and those narcotized with morphin the cardiac output is increased by anemia and anoxemia. On the assumption that this is also true in man, the authors urge that definite procedures should be employed to spare the heart. For this purpose early transfusion in anemia and early administration of oxygen in acute pulmonary disorders seem urgently indicated. In both of these conditions, as well as in chronic cyanosis of pulmonary origin, rest and digitalis should be employed for their sedative effect on the heart. While evidence of increased cardiac output exists, the patient should be kept under the influence of the drug, which must be discontinued if acute circulatory failure supervenes. Acute hemorrhage causes no change in the cardiac output of dogs until blood amounting to about 3 per cent of the body weight has been lost, when the first signs of shock appear. Further loss of blood produces severe shock, with marked diminution in cardiac output. These untoward results can be partially, but not entirely, prevented by the administration of fluid. Digitalis should be withheld immediately after hemorrhage and should never be given when signs of shock are present. When the clinical picture of hemorrhage has changed to that of anemia, digitalis is indicated. Cardiac failure in patients with chronic bronchitis and emphysema may be dependent on anoxemia and consequent overstrain of the heart.

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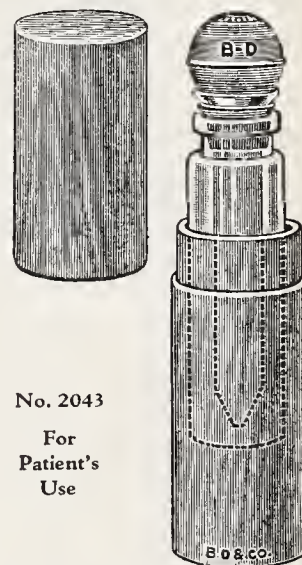
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Cohabitation, Colon Bacillary, Urinary Tract Infection—Two cases of cohabitation colon bacillus infection of the upper urinary tract are reported by A. J. Scholl, Los Angeles (Journal A. M. A.). The first case at the onset, was almost fatal and markedly resistant to all types of treatment; in the second the infection was of short duration with mild symptoms, and it responded to simple treatment. The infection in both these cases occurred in women to whom coitus caused trauma and was painful. In the pathogenesis of ascending urinary

infections following coitus, traumatism plays a very important rôle. It predisposes to infection, and the colon bacillus is the most frequent invader. The infection may be light, transient and unrecognized, or it may cause all the symptoms usually observed with a severe urinary infection. The colon bacillus probably enters the tract either through small wounds in the ruptured hymen or through the urethra, which may have been traumatized. The most probable mode of extension to the kidney is by the blood stream or by ureteral regurgitation. Once established, postnuptial pyelonephritis of this type assumes the properties of chronicity and resistance to treatment usually observed in the more common types of pyelonephritis. A cohabitation urinary, colon bacillus infection, similar to urinary infections developing from other sources, may disappear without medication or other treatment. At times the infection persists despite extensive treatment. In the majority of cases the ingestion of a proper amount of a urinary antiseptic may be sufficient to control the patient's symptoms, particularly when the infection is mainly in the lower urinary tract. In some cases, even when an extensive infection is present, the one insertion of diagnostic, ureteral catheters and pelvic lavage with a urinary antiseptic gives relief. When the infection has persisted for some time treatment must be instituted similar to that employed in cases of subacute or chronic pyelonephritis, arising from any cause. When there is retention in the renal pelvis, no matter how slight, the benefit from ureteral drainage is marked. A satisfactory method of prophylaxis or prevention of cohabitation urinary infection has not yet been determined. At present the early recognition and prompt institution of treatment are the only means of controlling this condition, and they may prevent the formation of a deep-seated urinary infection. When well established, such an infection has the chronicity and resistance to treatment commonly found in cases of pyelonephritis.

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Breast-Feeding Demonstration and Physician—The three cardinal points laid down by Sedgwick for the conduct of the breast-feeding demonstration are: (a) an interested and informed nucleus of medical men, enthusiastic over the possibilities and the advantages of breast feeding and possessing a scientific grasp of its technic; (b) the birth-recording bureau of the local department of health; and (c) an administrative bureau with an adequate staff of trained visiting nurses to visit every new mother within a short time of the birth of her baby. When the results of a breast-feeding demonstration based on these three factors are evaluated, however, Frank Howard Richardson, New York (*Journal A. M. A.*), says it has usually been found that they fall short of what thoughtful workers had hoped they might be. It is easy enough to get brilliant figures for the period actually covered by the mechanism of the demonstration. Those obtained in Minneapolis (from 92 to 96 per cent on the breast for the first month, according to the interpretation given the results obtained, down to about 70 per cent for the first six months) can be duplicated anywhere by conscientious work. But such a piece of work must be judged, not by the figures of the year in which it is actually in operation, but by the results obtained year after year, when the active demonstration is a thing of the past. Judged by this standard the results of these demonstrations have been far less encouraging. It is to record this fact, report progress toward remedying it, and outline a plan that it is hoped will be the solution of the difficulty that Richardson has written this paper. In the Nassau County demonstration a distinct step in advance was taken which did away with much of the irritation and even active opposition of the medical profession seen elsewhere. Here the rule was made that no mother was to be seen by any visiting nurse until the consent of the physician who had signed the birth certificate had been obtained. This step is earnestly urged on any community attempting such a piece of work in the future. A second rule is that in no place will the state department of health consider lending aid through its

district state health officer, local nurses, bureau of vital statistics and instructing breast-feeding nurse unless the county medical society or local academy of medicine asked for such help and decided by a formal resolution that it desired to put on a breast-feeding demonstration in its locality. One more step to be taken before the breast-feeding demonstration becomes the force for definite, enduring, permanent medical and social advance that it can become if only its proponents can have the wide and far-seeing vision necessary to safeguard it from its known and evident weaknesses consists in bringing to the members of the local medical profession, through their own unit of organized medicine (usually the county society, though the local academy of medicine, affiliated with organized medicine, may be preferable in the case of small cities within large counties) the whole message of breast feeding, as part of the graduate education movement that is spreading over the whole country. In this way the technique of breast feeding, its almost universal applicability, its possibilities, its advantages, its difficulties, can all become matter of common knowledge to the men who are eventually, it is to be hoped, to carry on the work in their own community. As a part of such a graduate education movement on the part of the county medical society, at least one center should be established in which clinical opportunities may be offered. Such a center, administered by a pediatrician who is enthusiastic over breast feeding and thoroughly conversant with its difficulties, is invaluable. Expression of the breast milk, the handling of the reluctant nurses, the prevention and treatment of caked breast and cracked nipple, the handling of the regimen of lactation, can here be learned in practice, which is immensely more convincing and satisfactory than didactic teaching, however admirable that may be. What is perhaps the most valuable feature of such teaching, however, is the fact that it is offered by the physician's own organization, and not by some outside agency, no matter how well meaning and conscientious such agency may be.

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Acanthosis Nigricans — Juvenile Type — Lester M. Wieder, Ann Arbor, Michigan (*Journal A. M. A.*), reports a case of the juvenile type of acanthosis nigricans in which studies were made in an attempt to establish some relation between the clinical observations and the disturbance of internal glandular secretions as determined by laboratory and clinical methods. The term "juvenile" is used by Wieder as indicating patients under 20 years of age and presenting no evidence of malignant disease, in whom the general health is unimpaired, the disease either progresses slowly or remains stationary, and death has not occurred. Wieder says that while many cases of acanthosis nigricans are undoubtedly directly due to the presence of tumors adjacent to the abdominal sympathetic system and suprarenal glands and directly associated with pressure on these structures, there are many, including the juvenile cases, that cannot be accounted for in this way. In cases not otherwise explainable the pigmentary change may find its explanation in hypofunction of the suprarenal glands. In the case here described striking features indicating hypofunction of the suprarenal glands were demonstrated.

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BOOK REVIEWS

This column is conducted solely in the interests of California and Western Medicine readers. Critical comment, favorable and unfavorable, purely from the standpoint of the interests of the medical reader, will be made about books selected from the larger number acknowledged in the Books Received column. The advertising columns are open to book publishers who wish to make additional statements about their publications.

Rational Gland Therapy for Women, Particularly in Relation to Menstruation. By I. Wanless Dickson. Pp. 96. New York: Paul B. Hoeber. 1926. Price, \$2.

There is a great deal of information crowded into this small volume. It is well written, but presents the subject in such a positive fashion that the average reader cannot but receive the impression that endocrine therapy has definitely solved all of the troublesome problems of the menopause and abnormal menstruations.

The title is deceiving insofar as the contents offer little proof for many of the assumptions the writer makes in regard to endocrine therapy. In the reviewer's opinion a book of this sort will bring a host of disappointments to those who accept Dickson's deductions as final. The discriminating reader will find it worth his while to read the book.

Aqueous Humor—Arthur M. Yudkin, New Haven, Connecticut (*Journal A. M. A.*), analyzed the aqueous humor of normal and pathologic eyes. In all, twenty-one eyes were examined at various intervals after death. The aqueous humor up to ten hours after death gave a reading within normal limits, whereas that examined after that interval gave an index above normal. There is no doubt that the composition of the second fluid which fills the anterior chamber of the eye after removal of its content is different from the normal aqueous humor. The physical properties undergo a marked change. The refractive index and the viscosity are greater than normal; the contents of the anterior chamber possess the power of coagulation. This phenomenon is absent from the normal fluid. There is no evidence that the ciliary body acts

as a gland and secretes the aqueous humor as a true secretion. On the contrary, the intraocular fluid is produced by a process of filtration; and the difference of pressure between the blood in the capillaries and the fluid in the eye is one of the main factors which determines the amount of transuded fluid. Changes in physical properties of this fluid are caused by a rapid alteration in the intraocular pressure after removal of fluid from the vitreous chamber or from the anterior and posterior chamber. An increase or decrease in the permeability of the capillaries of the anterior uveal tract changes the composition of the normal fluid. Changes in the permeability of the vessels may be produced by chemical or toxic substances and by stimulation and sectioning of various nerves. Mechanical irritation of the external part of the eye does not seem to affect the composition of the eye. Yudkin corroborates the observations of others that iodides are found in the normal aqueous after intravenous injection. There are certain recognizable foreign substances injected into the blood stream which will not appear in the normal aqueous humor unless the permeability of the capillaries has been increased. Any method which will increase the permeability of the anterior uveal tract offers the possibility of promoting the transfer of intravenously injected drugs into the anterior chamber of the eye. Epinephrine decreases the permeability of the capillaries so that less crystalloid and colloid substances find their way into the aqueous humor after the normal mechanism is interfered with. Pilocarpine and physostigmine increase the permeability of the capillaries so that the refractive index becomes higher than normal. Injection of saline solution, mercuric cyanide, ethylmorphine, hydrochloride or atropine does not seem to interfere with the filtration process of the aqueous humor.

Crows devour the eyes of the dead, when the dead have no longer need of them. But flatterers destroy the soul of the living and blind their eyes.—Epictetus.

Humbuggery Regarding Mineral Contents of Drinking Water

Sir William Osler, M. D., F. R. S., in his "Principles and Practice of Medicine," page 425, states that "much of the humbuggery in the profession still lingers about mineral waters, more particularly about the so-called lithia waters."

The editor of the Journal of the A. M. A. has called attention to this same mineral water delusion and asks, "What will the mineral water fad be twenty-five years from now?"

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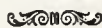


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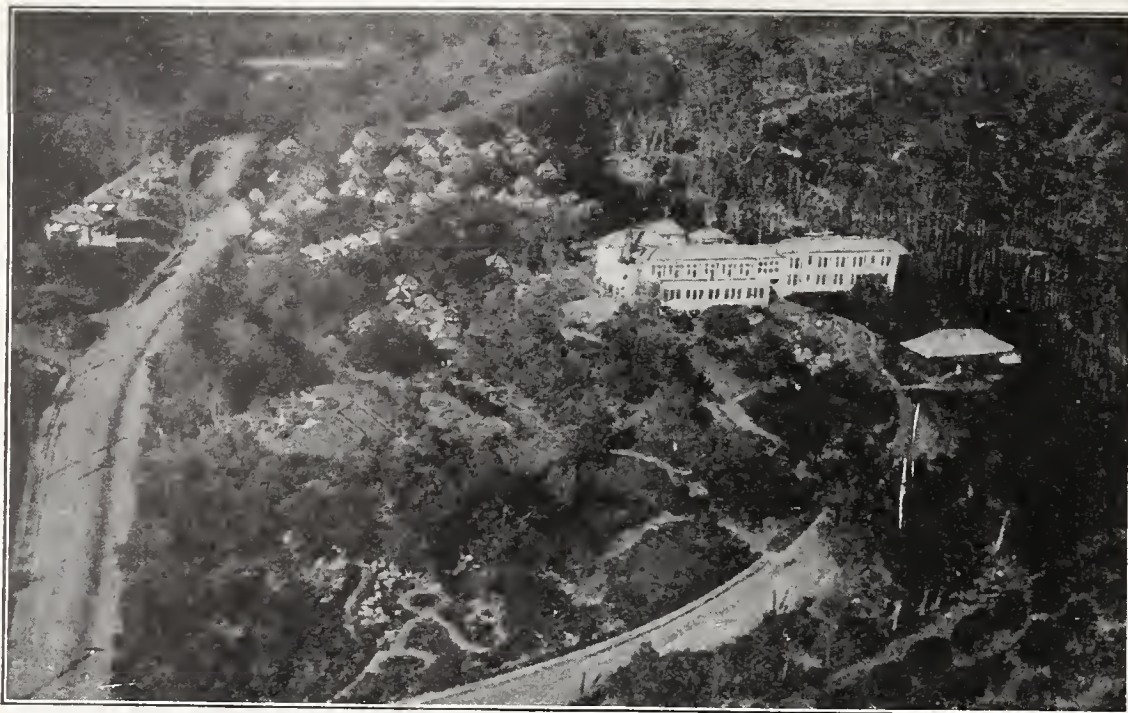
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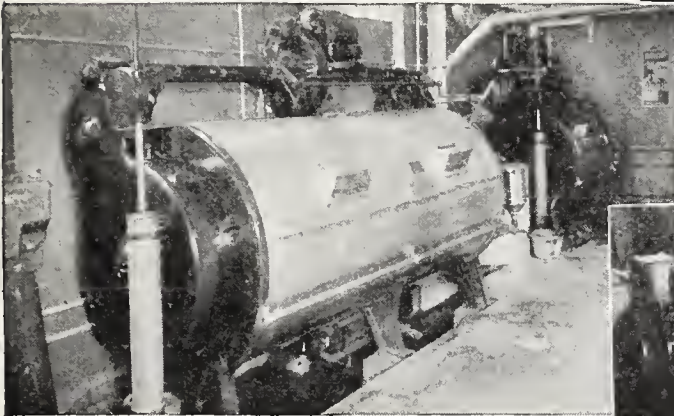
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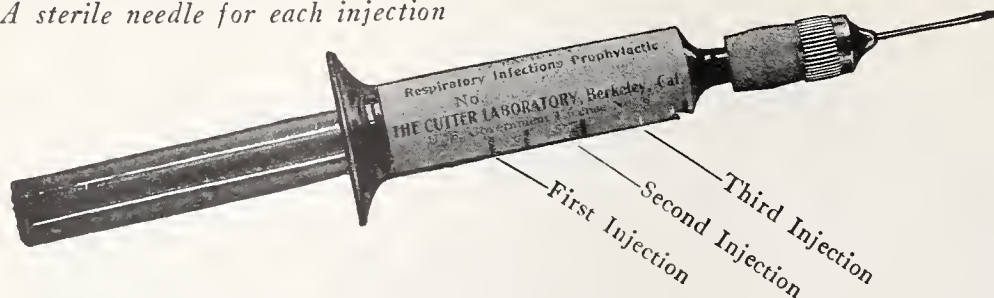
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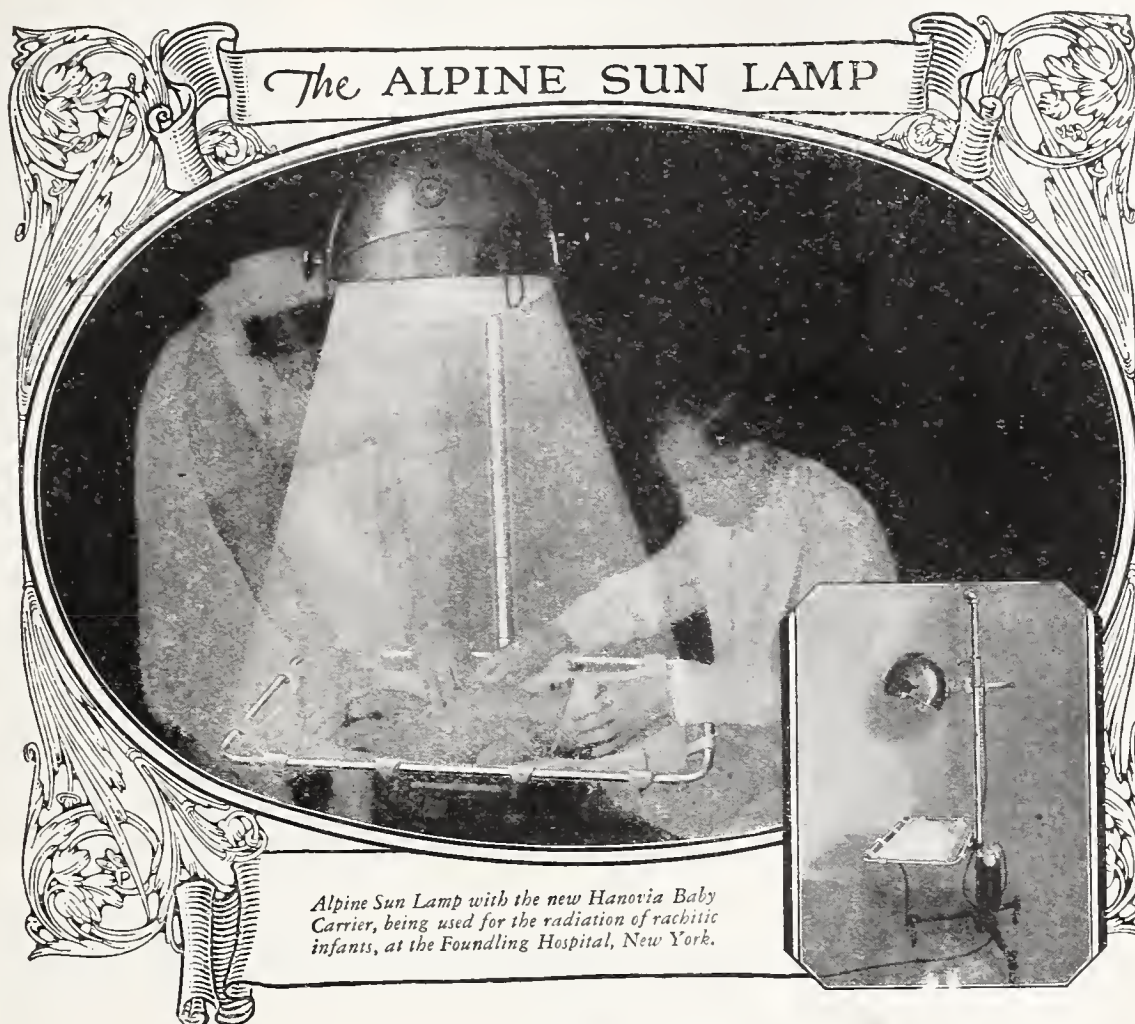
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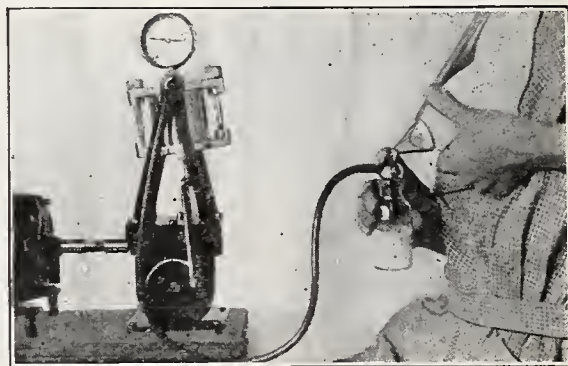
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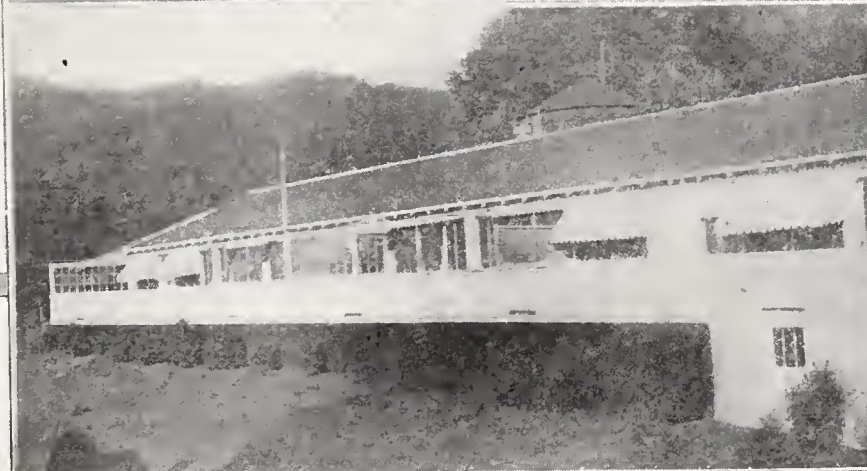
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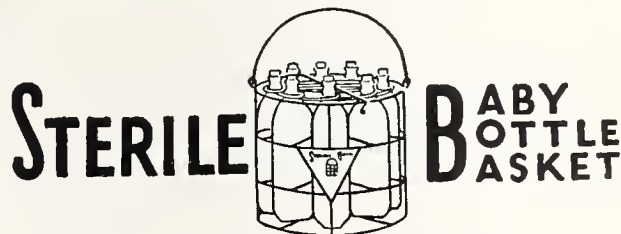
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Therapeutics—Anno Domini, 1926—A few pseudo-medical journals still eke out a precarious living by selling their advertising pages to nostrum exploiters who cannot obtain space in reputable medical journals. One of these survivals is the *Archives of Therapeutics*, published by the Archives of Therapeutics, Inc., 243 Fourth Avenue, New York City, which gives on its title page the names of Carl P. Sherwin, M.D., Sc.D., LL.D., as editor, Benjamin Harrow, Ph.D., as managing editor, and of fifteen associate editors, some of whom are men of unquestioned professional standing. In the November, 1926, issue are thirteen and three-quarters pages of advertisements of nostrums, the great majority of which are not only unacceptable for "New and Nonofficial Remedies," but have also been at one time or another the subject of critical reports. Some of these are: Abican, Agarol, Anasarcin, Antiphlogistine, Campho-Phenique, Cactina Pillets, Chionia, Echthol, Gray's Glycerin Tonic, Hexalet, Hyperol, Pasadyne, Phillips' Phospho-Muriate

of Quinine, Peacock's Bromides, Pineoleum, Prunoids, Sal Hepatica, Sanmetto. In addition to this list there is a full-page advertisement of "Orchaphrin Tablets" and "Ovaphrin Tablets," described as aphrodisiacs for men and women, respectively. They are said to be mixtures of yohimbine hydrochloride, extract of nux vomica, sodium nucleinate, pituitary, thyroid and suprarenal substances, and to differ only in that the "Aphrodisiac for Men" contains, in addition to the products listed, orchic substance, while the "Aphrodisiac for Women" has ovarian substance.

This number also contains a "Ready Reference Index" listing 120 pathologic states and giving 300 recommendations of proprietary remedies for their treatment.—*Journal A. M. A.*, December 11, 1926.

Notwithstanding we have been presented with a government recipe for scalloped parsnips our loyalty to the administration is unshaken.—*Toledo Blade*.

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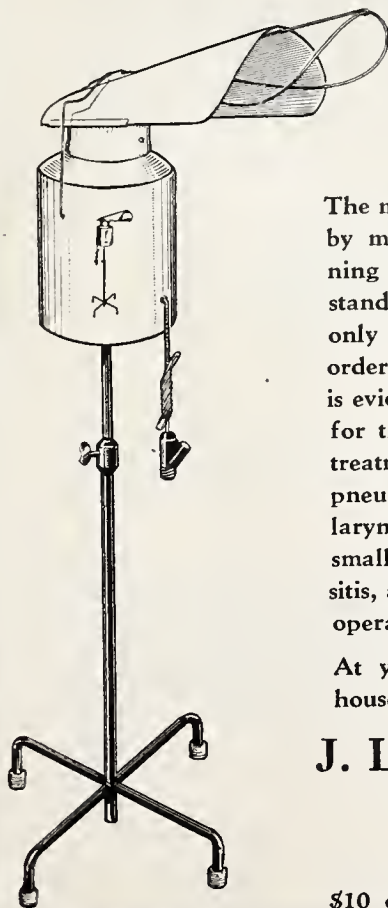
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Contributors to This Issue

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ADELAIDE BROWN

A Survey of Prenatal Care in California

A. J. SCHOLL

Histology and Mortality in Tumors of the Prostate, Bladder, and Kidney

THEODORE C. LAWSON

Volvulus of Entire Small Intestine with Torsion of Mesentery

LOUIS E. MAHONEY

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WILLIAM J. KERR AND L. F. MORRISON

Tricuspid Disease

ROBERT G. BRAMKAMP

The Effect of Gastric Juice on Carbohydrate Decomposition by Yeast

IRWIN C. SUTTON

Experience with the Bismuth Treatment for Syphilis

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CLARENCE A. JOHNSON

The Swallowing of a Full-Sized Toothbrush

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Absorption of Subcutaneous Fat Deposits at Site of Repeated Insulin Injections

STANLEY H. MENTZER AND ERNEST S. DUBRAY

Fatty Atrophy from Injections of Insulin

BEDSIDE MEDICINE FOR BEDSIDE DOCTORS

Subject this month: What are the Essential Indications for Caesarean Section?

Discussed by: Alice F. Maxwell, W. O. Henry, E. T. Rulison, Edith S. Brownsill,

Walter F. Wiese, W. J. Blevins, Edgar Brigham, C. B. Cortright

Medicine Today; Editorials; Medical Economics, Organizations and Agencies;

California, Utah and Nevada Medical Associations; Readers Forum;

California Board of Medical Examiners

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Volume XXVI FEBRUARY 1927

Number 2



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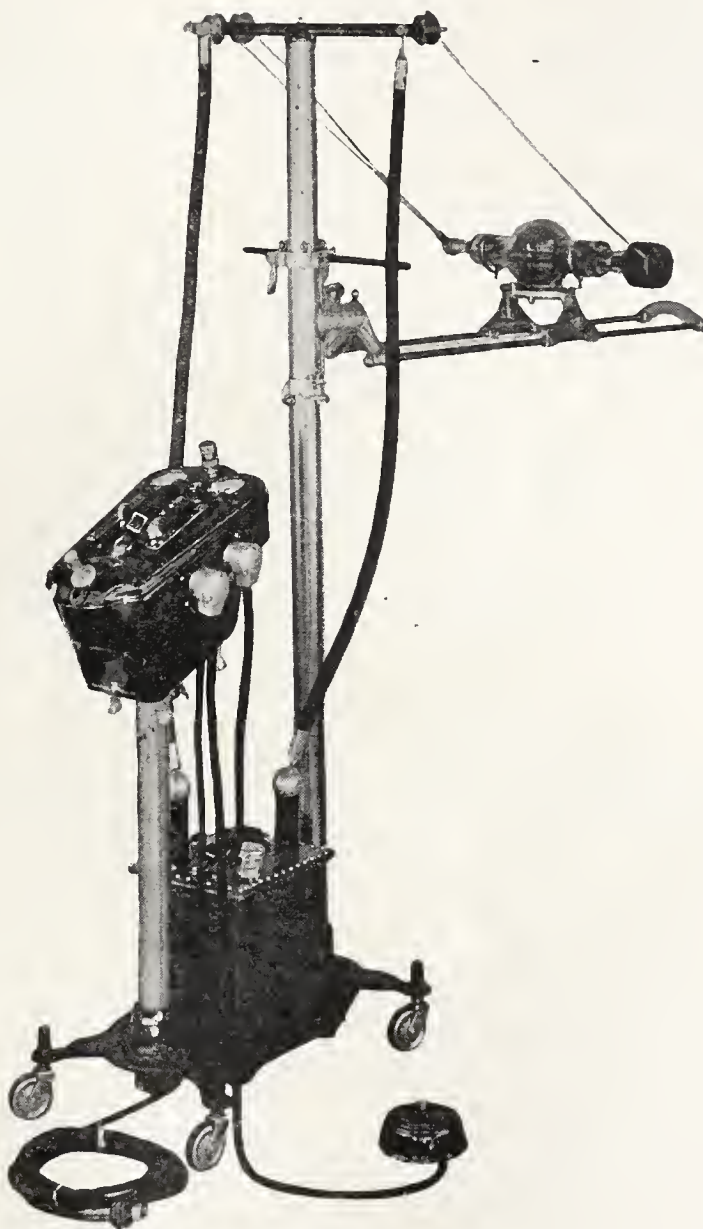
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VOLUME XXVI

FEBRUARY, 1927

No. 2

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Acceptance for mailing at special rate of postage provided for in Section 1103, Act of October 3, 1917, authorized August 10, 1918.

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BOOK REVIEWS

This column is conducted solely in the interests of California and Western Medicine readers. Critical comment, favorable and unfavorable, purely from the standpoint of the interests of the medical reader, will be made about books selected from the larger number acknowledged in the Books Received column. The advertising columns are open to book publishers who wish to make additional statements about their publications.

One of the most interesting and informative volumes we have seen recently is "A Statistical Survey of Three Thousand Autopsies," by William Ophüls (Stanford University Publications, Medical Sciences, Vol. I, No. 3, Stanford University Press).

The work might be classed by some ultra-moderns as Victorian in the medical sense, in that it revivifies the recently much neglected importance of morbid anatomy. Ophüls shows us in this keen analysis of a large series of autopsies that people are still suffering and dying from pathological conditions in no essential different from those known to have destroyed our forefathers:

"Sixty-four per cent of all bodies examined showed evidence of infection with tuberculosis. The disease was active in 22 per cent of all cases and quiescent or healed in 42 per cent of them. Of the patients with active tuberculosis 82 per cent were sufferers from pulmonary tuberculosis; other organs were the main seat of the disease in 18 per cent of the active cases only."

Sepsis, exclusive of the adventitious and supernumerary kinds was present in 43 per cent of the cases:

"Nearly one-third of all patients examined (30½ per cent) had manifestly diseased arteries, and again in nearly one-third of these (10 per cent of all patients), the diseased condition of the arteries had been associated with hypertension resulting in cardiac hypertrophy. Serious diffuse disease of the kidneys (nephritis) was found in only 7 per cent of all patients. About one-half of these (3½ per cent) showed evidence of hypertension. . . .

"Anatomical remnants of a gonorrheal infection were found in 3 per cent of all males and in 15 per cent of all females. The real incidence of the disease is, of course, much higher in men than it is in women. In fact the clinical histories, so far as I have seen them, seem to reveal the fact that gonorrheal infection had existed at one time or another in the majority of the men among this class of people, but that lasting damage resulted only comparatively rarely. On the other hand, it is quite appalling that as many as 15 per cent of all adult women showed evidence of subacute or chronic inflammation in and about the Fallopian tubes, which is usually referred to preceding gonorrheal infection. Some of these lesions no doubt were the consequence of septic abortions, and it is difficult to estimate how many were due to the one and how many to the other cause; but it is certainly worth while to call attention again to the frequency of these serious inflammatory lesions in the genital track of the women of the working classes, which cause a tremendous amount of suffering and render many of them sterile. . . .

"There are many stillbirths (71, or 2.4 per cent of all cases), and many infants dead within the first year (236, or 7.8 per cent of all cases). One-tenth of all patients examined had died before or shortly after birth and in more than one-third (112) of these 307 cases the premature death was due to congenital syphilis. There is no one other single factor so important in infant mortality as congenital syphilis; in fact all others pale into insignificance in comparison with it. It kills the children before they have reached maturity in utero, and it produces such severe lesions in the lungs, the liver, and other organs that many more die within the first weeks after birth, often in spite of appropriate treatment. If the disease could be eradicated the change in infant mortality would be revolutionary. Even if such a radical change cannot be brought about, much which could readily be accomplished with the means at present at our disposal remains to be done in the prophylactic treatment of expectant mothers.

"The total number of patients with tumors was 893, or nearly 30 per cent of all cases. Carcinoma was found in 13 per cent of all patients (a carcinoma in nearly every seventh patient), and sarcoma, including Hodgkin's disease and leukemia, in 4 per cent,

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making the total percentage of malignant tumors 17. The mortality statistics of the United States Bureau of Census for 1920 show a percentage of 6.4 per cent for cancer and other malignant tumors; the mortality statistics of insured wage-earners by the Metropolitan Life Insurance Company only 5.9 per cent. A large part of the discrepancy between their figures and ours must be due to lack of a proper diagnosis in their cases, many of which were observed clinically only. Any further refinement in clinical diagnosis or any increase in the number of postmortem examinations is therefore still apt to raise the "cancer-rate" quite considerably. One thousand one hundred and four tumors were found in 893 patients, showing how frequently one person carries two or more tumors."

And so we might go on indefinitely quoting from the wealth of material that has been so carefully examined and the results tabulated for the edification of physicians who are still more interested in facts than the fancies so popular today in medical literature.

Every physician who treats the sick needs to read Ophüls' attractive book to offset some of the stupid rot that is now fed to him from so many sources.

"Good Looks" is the title of an illustrated little book of a hundred pages written and published privately by Irwin C. Sutton, M.D., Los Angeles. It is apparently designed as information and advice for the author's own patients, and for any others who may be interested.

Books of this kind are increasing in numbers, particularly abroad and, when sound and conservative as this one seems to be, will serve a useful purpose. Doctor Sutton's book is unique in the fearless, sensible and outstanding manner in which quackery about cure-alls for skin disease is exposed and in emphasizing the injury to health and even frequent deaths now being caused by so-called beauty specialists.

(Continued on Page 162)



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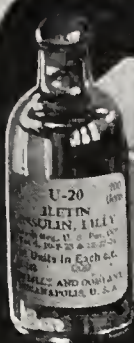
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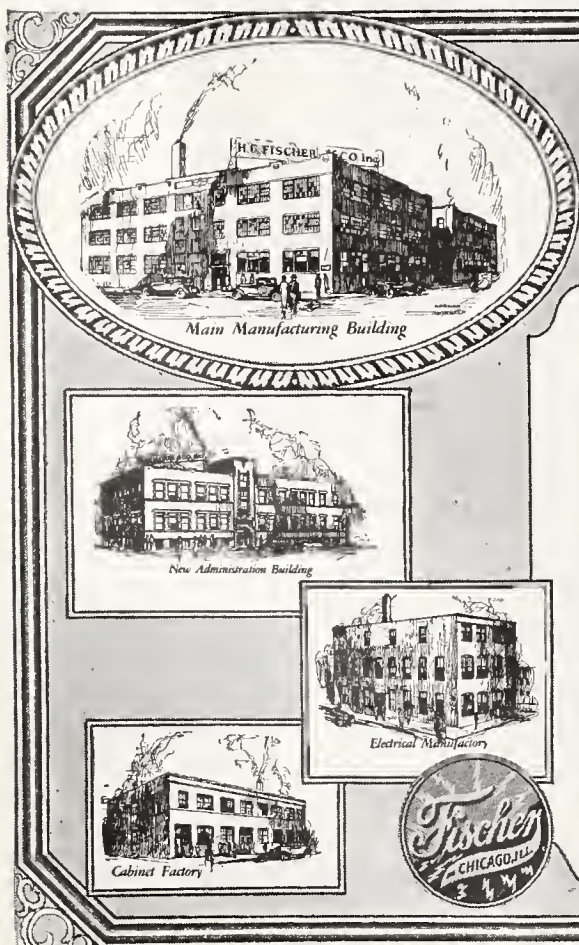


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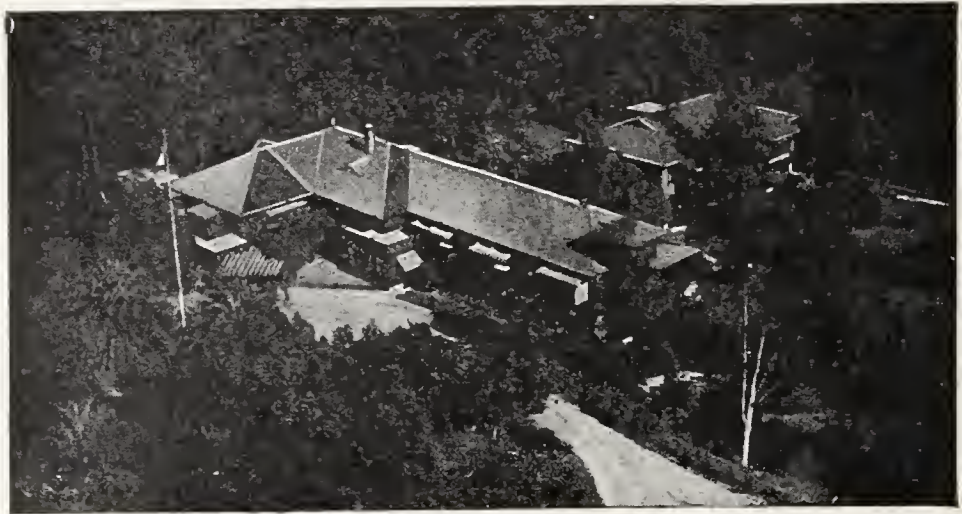
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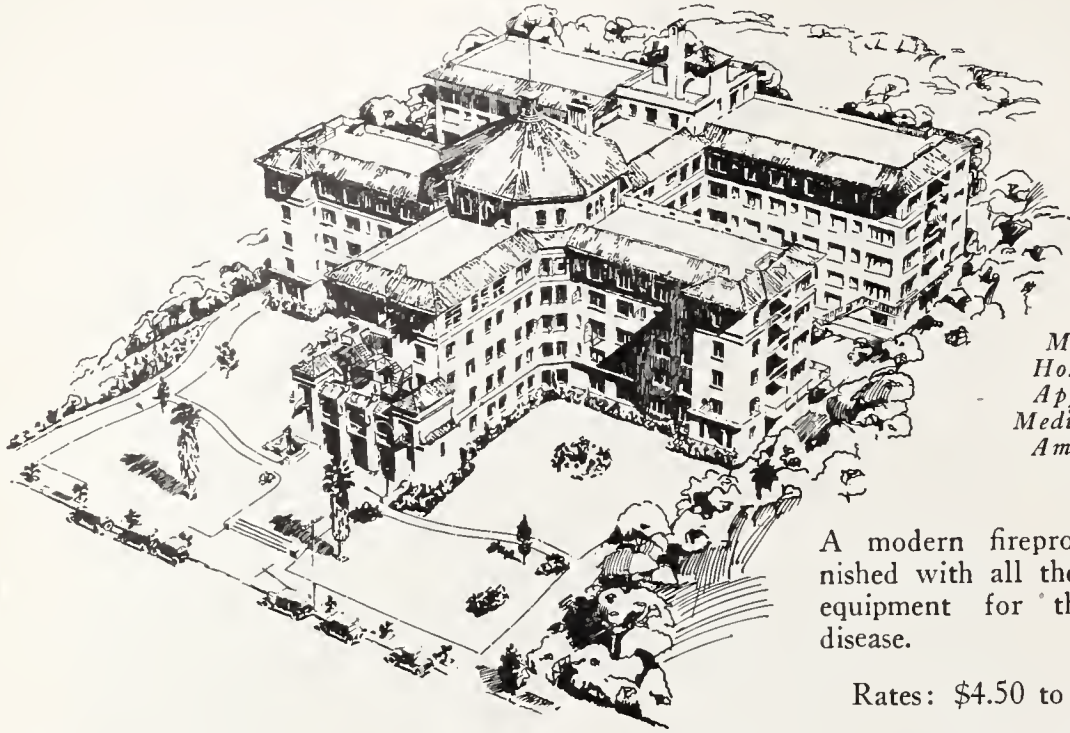
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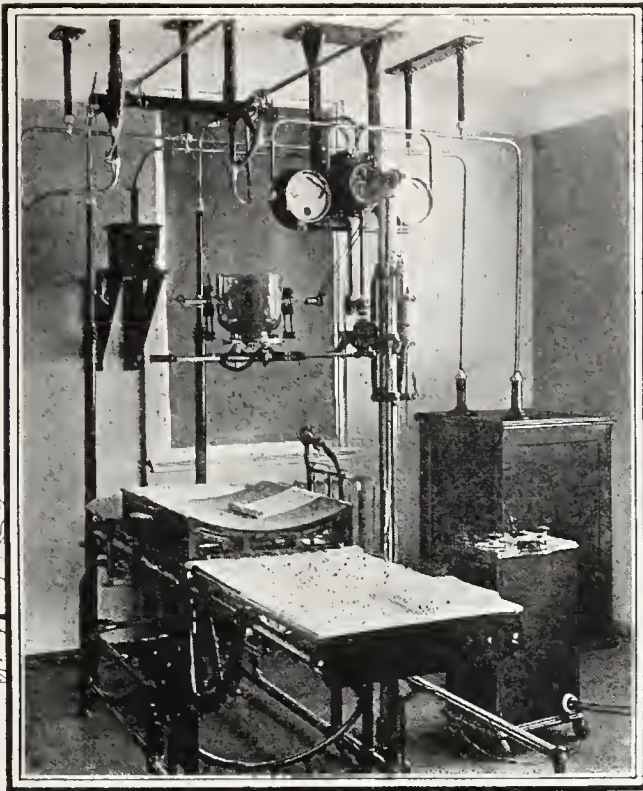
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Treatment of Pernicious Anemia—J. L. Yates and William Thalheimer, Milwaukee (*Journal A. M. A.*), report a case of pernicious anemia in which several unusual observations were made. One hundred and thirteen transfusions were made in three years from many donors. Slightly more than 52 liters of unmodified and modified blood was given by five methods without the patient's developing unusual antagonism against any of the blood transfused. This patient required a transfusion of 500 cc. of blood every two weeks to provide sufficient internal respiration to maintain active life. Several times during his illness he refused transfusion for periods of from four to six weeks, but was compelled by his waning health to return for more blood. Each time it became more difficult to restore him, even approximately, to his previous status. He refused to follow directions as to diet, rest and general hygiene, nor would he permit the removal of his teeth. The fatal decline followed an interval of five

weeks without transfusion. Despite his noncooperation his life was apparently prolonged two or more years. Death resulted from failing metabolism, the fatigue and exhaustion of cells whose functions were essential to life, which had been injured by the restricted oxidation during periods of intense anemia, by overexertion and perhaps by intoxication. The experiences of this patient indicate that restoration of the blood volume to normal by several large transfusions, and the maintenance of a relatively normal blood volume by repeated small transfusions to offset the deficit in hematopoiesis provides opportunities for such recovery as may be obtained, and assures the utmost extension of active life. The use of preserved blood, if it proves to be safe, offers a means to provide for frequent small transfusions.

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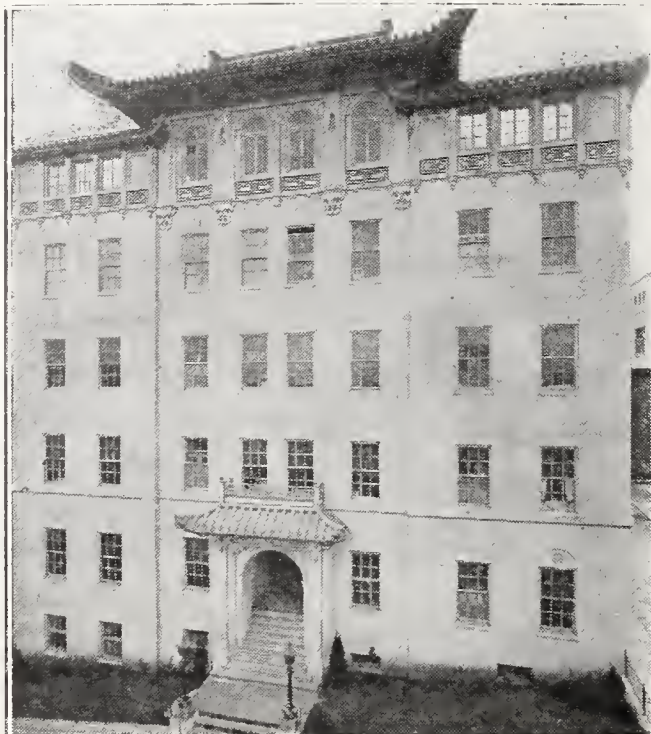
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BOOK REVIEWS

(Continued from Page 151).

"The Radcliffe Infirmary," by Alexander George Gibson (Oxford University Press, London: Humphrey Milford, 1926), is an entertaining history of the hospital, one of the foundations left by Radcliffe. Osler always took an active interest in this hospital, and its history by Doctor Gibson, who attended Osler in his last illness, contains many Oslerisms, from which we quote:

"1. Abdominal pain in old people: first think of hernia, and when you have done that, think of it again.

"2. There are three requisites of a perfect medicine: it should be colored, have taste and be harmless.

"3. Pressure paraplegia is always a painful paraplegia.

"4. Anterior poliomyelitis might be called Mephibosheth's disease, who was lame from infancy. Since the days of Madam Saul nursemaids have been thought to cause it by dropping their charges.

"5. A patient may live many years with complete blockage of any one of the large veins, superior vena cava, inferior cava, portal vein.

"6. All of the organs of the abdomen may occasionally be seen through the abdominal wall except perhaps the coccygeal gland.

"7. Ascites without an obvious cause means an operation.

"8. Paroxysmal cough often means pus in the chest. (This was illustrated very strikingly in Osler's last illness.)

"10. Patients with imaginary ailments or with many complaints without obvious cause he would refer to as omphalites or as having a lesion of the filum terminale or pineal body."

(Continued on Page 169)

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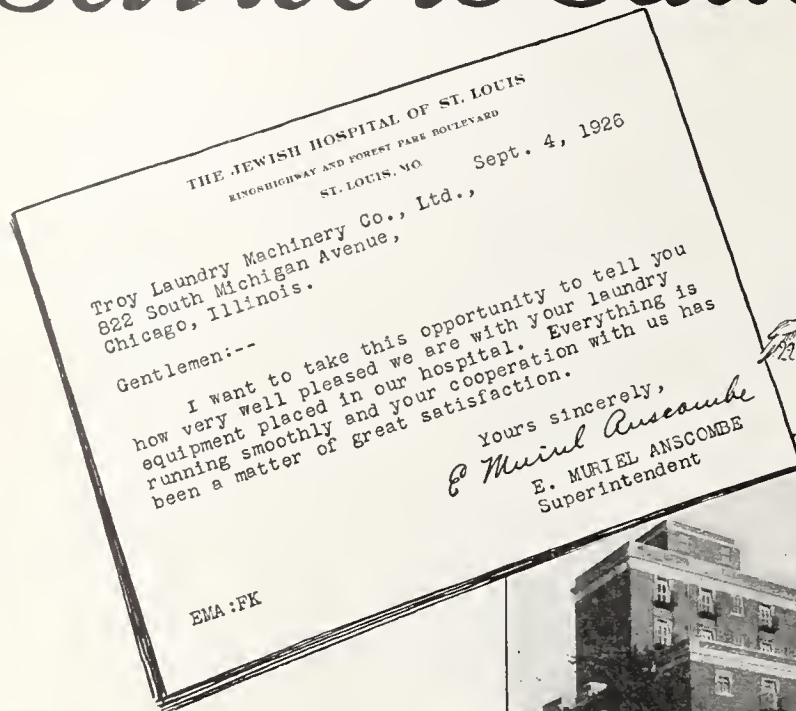
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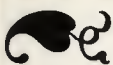
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BOOK REVIEWS

(Continued from Page 162)

"Diseases of Women," by Harry Sturgeon Crossen
(C. V. Mosby Company, 1926), \$11.

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over a period of twenty years is attested by the recent
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of the preface to the first edition when he says: "This
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book, and in none more helpfully than in the new sixth
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"The Normal Child," by B. Sachs, M. D. (Paul B.
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sicians that are undoubtedly very useful. There are others

(Continued on Page 246)

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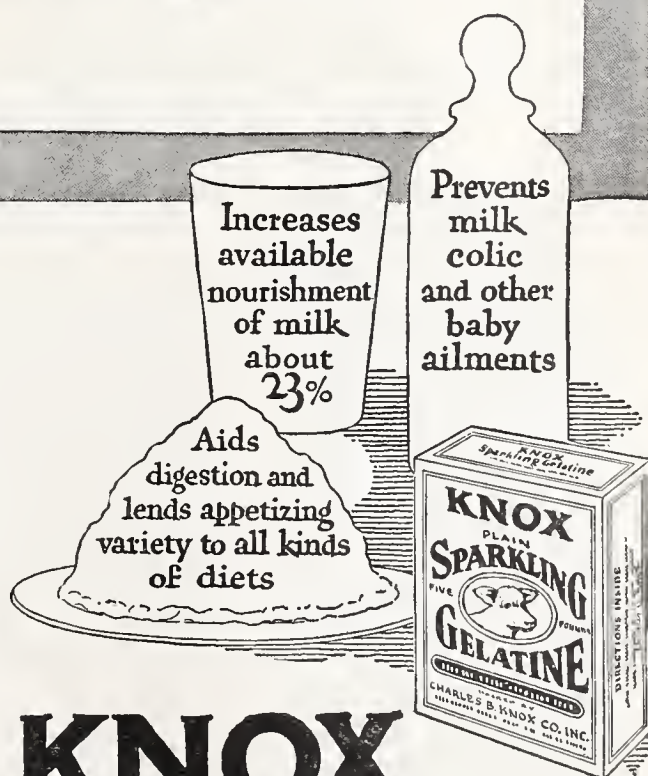
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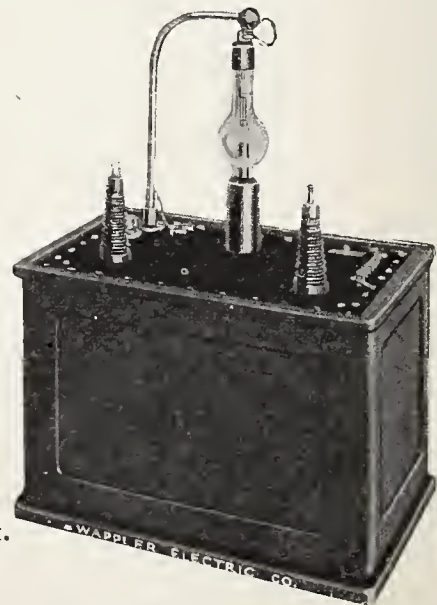
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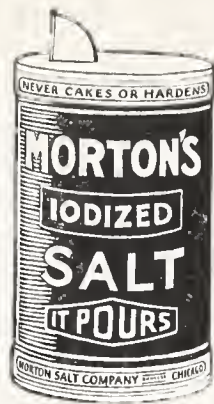
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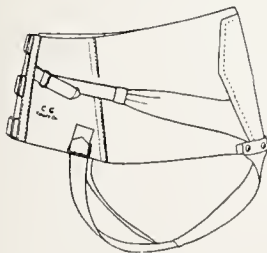
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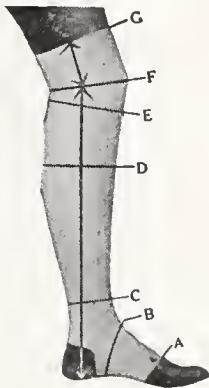


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CALIFORNIA AND WESTERN MEDICINE

VOLUME XXVI

FEBRUARY, 1927

No. 2

THE OUTLOOK FOR THE DIABETIC

By ELLIOTT P. JOSLIN *

New England Deaconess Hospital, Boston

THE EDITOR: "*The Outlook for the Diabetic*," which begins below and will be completed in the March issue, is an address delivered by Dr. Elliott P. Joslin of Boston before the San Diego County Medical Society at the Scripps Metabolic Clinic, La Jolla, California, on November 18, 1926. Over two hundred physicians of southern California gathered to hear this address by an acknowledged authority on the subject.

THE Doctors' Diabetic Trust—The outlook for the diabetic depends upon the education of the public, the patient, and the medical profession. Diabetes is not like smallpox, diphtheria, or typhoid fever, which anybody can avoid if he so desires; it is not like malaria which a patient can cure with a few quinine pills, nor does it resemble a bone out of its socket which a deft surgeon can replace with a turn of the wrist. Diabetes is not yet so simple and never can be. Diabetes is a disease which is interwoven with the habits and heredity of the individual, and to prevent or combat it requires that the entire adult population of the country be lifted up to a higher level of medical knowledge. Fortunately to further this task the diabetic patients themselves are our agents and allies. The duty of the physician is to direct the program, but to my mind that is but a fraction of his task. I look upon the million diabetics in this country as a trust placed in the doctors' hands for conservation and development. The lives of the diabetics must be preserved, but they must yield dividends of health for all. These patients are under constant supervision. Here is the opportunity for health examinations on a vast scale. What other such select group of adult individuals exists which can demonstrate better the efficacy of preventive medicine, the success of prompt surgical intervention in acute and chronic surgical affections, including cancer, the effect of early diagnosis of tuberculosis and, in fact, all other medical ills which can be thwarted or cured. What a trust!

* Elliott P. Joslin (81 Bay State Road, Boston, Mass.). M. D. Harvard, 1895; B. A. Yale, 1890; Ph. D., Sheffield Scientific School (Yale), 1891; Hon. M. A., Yale, 1914. Graduate study: Massachusetts General Hospital; Boston Lying-In Hospital; Germany. Previous honors: Lieutenant-Colonel Medical Corps, United States Army. Present hospital connections: Consulting physician, Boston City Hospital; physician to New England Deaconess Hospital. Scientific organizations: American Academy of Arts and Sciences, Association American Physicians, A. M. A., American Philosophical Society, Interurban Club, American Society for Clinical Investigation. Present appointments: Clinical Professor of Medicine, Harvard Medical School. Practice limited to Medicine since 1895. Publications: "The Treatment of Diabetes Mellitus" (three editions). "A Diabetic Manual" (three editions), published by Messrs. Lea & Febiger, Philadelphia; "Diabetic Metabolism with High and Low Diets," Publication 323, Carnegie Institution of Washington, 1923.

The public and the patients too will watch our administration of it with critical eyes.

Education of the Public—The public should learn two facts about diabetes—first, that it is overwhelmingly more common after the age of 40 years, and, second, overwhelmingly more frequent in the fat.

The onset in 58 per cent of my cases in my former series was after the fortieth year, but in the group of patients who came under my observation for the twelve months ending July 1, 1926, the percentage of cases above 40 years was still greater, namely, 66 per cent. The death records for diabetes in Massachusetts as compiled by Angeline Hamblen are even more striking, for they show that for the years 1921-25, 86 per cent of the diabetic deaths were in individuals past 50 years of age as contrasted with 54 per cent in the first five years of the century. Middle life is a menace to the fat. When metabolism has become less active, when exercise lags and fat accumulates, the danger of acquiring diabetes becomes acute.

TABLE 1

THE FREQUENCY OF ONSET OF DIABETES
BY DECADES

The middle-aged obese furnish the material for diabetes. In 1921 the records of 1000¹ diabetics were examined and showed that the maximum weights of only 10 per cent were below the standard weight zone, while 15 per cent came in that zone, and 75 per cent were above it. If we limit our study to the 626 individuals in the table who were over 41 years of age there were but 5 per cent below standard weight, 10 per cent in that zone, and 85 per cent above it. Recently another compilation of 1000 cases has been made, but this time pains have been taken to exclude from the list all save true, proven, diabetics. Here the figures are even more conclusive, because they show that the maximum weights of only 2.5 per cent above the age of 41 were below the standard weight zone and over 86 per cent above it. Between the ages of 51 and 60 in this recent series there were 252 diabetics, and of this number there were but two individuals who were underweight. If the public does not wish diabetes it should learn to keep thin, or at least to avoid obesity.

TABLE 2

VARIATION FROM NORMAL, ETC.

Obesity is harmful quite apart from its predisposition to diabetes. In fact the duration of life of a group of my fat diabetics who in consequence lost

1. Joslin: Jour. Amer. Med. Assn., 1921, 76, 79.

TABLE 1
FREQUENCY OF ONSET OF DIABETES BY DECADES

| Period | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|--|-----|-----|------|------|------|------|------|-----|------|
| 1898—1922 ¹ | 5.7 | 8.3 | 12.2 | 15.9 | 25.1 | 22.3 | 8.7 | 1.6 | |
| July 1925—July 1926 ² | 5.1 | 7.8 | 6.7 | 12.4 | 24.8 | 27.6 | 13.4 | 2.0 | 0.2 |

¹ Compiled to July 1, 1922, 2611 cases; of these 2278 are true diabetics.

² Compiled July 1, 1925—July 1, 1926, 1135 cases; all true diabetics; ages of three others unknown.

weight has been shown to be greater than the calculated life expectancy for similar individuals without diabetes. Diabetes may be bad, but obesity in late middle life is worse.

Etna, California, shows the proper spirit. The Associated Press with its characteristic discrimination last June gave out a dispatch the importance of which was so obvious that the Boston *Herald* printed it on its front page. "Hill Town Hires Only Slim Teachers, Light on Muleback. Etna, Cal., June 11, 1926. Weight, or rather the lack of it, is one of the qualifications for teaching in the Salmon River School of northern California. On several occasions it has been the governing factor in the choice of a teacher. Applicants must give the figure at which they tip the scales, and too much avoirdupoise automatically stamps the application unsatisfactory." Praise be to Etna for her progressiveness.

The Education of the Diabetic—Personal responsibility for the treatment of his diabetes came with the general introduction of the use of the Benedict test for sugar by the patient. Many a patient had assumed this responsibility before, but it was not the least of Allen's contributions to medicine when he made the custom universal. Hitherto the patient not only could be cheated by the quack, but could cheat the doctor and himself too, but this simple test, which a child can perform, abolished any doubtful ideas in the patient's mind about the harmlessness of breaking his diet. The Benedict test has done more than anything else to secure for the physician the co-operation of his patient. Insulin has worked in a similar manner, because it has made the patient again co-operate with his doctor. Is there any chronic disease in which personal responsibility and co-operation between the two are more needed or better secured?

It is cruel to treat a diabetic patient without instructing him or her in regard to diet, insulin, and the complications which may arise in the disease and in a proper attitude toward work and life. One should go further and give suggestions about entering the professions, banking, and business, all of which are open. It would be disadvantageous to be a commercial traveler. The diabetic should not be a railroad engineer. Best of all he should seek an occupation which engages his muscles as well as his mind.

The development of the character of a patient, particularly if he is a child, demands almost as much attention as advice about diet or insulin. The pathos of the diabetic child years ago often led to relaxation in discipline, but today he should be treated

as any child. No longer is a diabetic, whether child or adult, to be considered as a different species. Neglect discipline and the results are disastrous to the peace of the family, and ultimately to the child's social contacts. A diabetic child should enjoy the memory of a deserved spanking when he grows up just as much as do the rest of us. Diabetic children are precocious. They are as superior mentally as Priscilla White has shown them to be superior in stature from the analysis of the heights of 100 of my diabetic children at onset of the disease. These 100 children exceeded the average of the Wood table by 2.7 inches.

Education of the Physician—The outlook for the diabetic in this generation as well as in the next depends upon the doctor of today. Diabetes demands him at his best. In its treatment he must combine knowledge acquired in the laboratory, clinical acumen, a statistical bent, and an eye to preventive medicine. Without the knowledge of laboratory technique he is lost in the differential diagnosis of coma. Without good clinical training he will miss a latent tuberculosis or a cancer. Without an interest in statistics it will be difficult for him to keep his records and derive cheer from the progress which his patients make. His future peace of mind depends on the assiduity with which he conducts a campaign for the prevention of complications in his diabetic patients and of diabetes years to come among their descendants and in his nondiabetic clientele as well.

The medical profession has made enormous strides in the treatment of diabetes. I will show that later, but I wish to suggest here certain lines in which further progress can be made. Those of us who are fortunate enough to have a multitude of assistants and technicians and beautiful laboratories at our command do not realize the difficulties and the doubts which the general practitioner encounters in the treatment of his diabetics. It is wonderful he does so well. But it is wrong for him to be denied or to go without simple quantitative tests for estimation of sugar in the urine and sugar in the blood, upon which his treatment must be based. He must keep in advance of the patient. If the patient knows the qualitative test for sugar, the doctor must know the quantitative test for sugar or how he can easily secure it. Fortunately today we have simple micro-methods for blood sugar which any high school girl under a doctor's direction can learn in a brief space of time, and then place at the disposal of the physician. All of us who work in hospitals co-operate in our laboratory work. Physicians outside of hospitals should co-operate as well. Every doctor

TABLE 2

VARIATION FROM NORMAL AT MAXIMUM WEIGHTS AT OR PRIOR TO ONSET, OF 1000 CASES OF DIABETES, CALCULATED FOR HEIGHT, AGE, AND SEX

| Age, Years | Number of cases | Below standard weight, per cent | | | Normal Average Zone Percent $\pm 5-5$ | Above standard weight per cent | | | | | | | | Percentage of each decade below normal zone |
|------------|-----------------|---------------------------------|-------|------|---------------------------------------|--------------------------------|-------|-------|-------|-------|-------|-------|-----|---|
| | | 30-21 | 20-11 | 10-6 | | 6-10 | 11-20 | 21-30 | 31-40 | 41-50 | 51-60 | 61-70 | 71+ | |
| 1-10..... | 43 | 1 | 10 | 8 | 16 | 4 | 4 | .. | .. | .. | .. | .. | .. | 44 |
| 11-20..... | 84 | 4 | 12 | 8 | 33 | 9 | 7 | 7 | 1 | 2 | .. | 1 | .. | 29 |
| 21-30..... | 112 | 1 | 6 | 4 | 21 | 16 | 25 | 11 | 9 | 12 | 2 | 1 | 4 | 10 |
| 31-40..... | 172 | 1 | 1 | 6 | 11 | 10 | 28 | 39 | 25 | 22 | 18 | 4 | 7 | 5 |
| 41-50..... | 244 | .. | 3 | 4 | 30 | 13 | 37 | 48 | 51 | 24 | 14 | 10 | 10 | 3 |
| 51-60..... | 252 | .. | 2 | .. | 30 | 19 | 44 | 65 | 45 | 24 | 9 | 7 | 7 | 1 |
| 61-70..... | 79 | 3 | 2 | .. | 8 | 8 | 17 | 19 | 10 | 8 | 4 | .. | .. | 6 |
| 71-80..... | 14 | .. | .. | 1 | 2 | .. | 1 | 4 | 3 | 2 | 1 | .. | .. | 7 |
| 1-80..... | 1000 | 10 | 36 | 31 | 151 | 79 | 163 | 193 | 144 | 94 | 48 | 23 | 28 | |

should have a laboratory at his elbow from which he can be furnished at minimum cost, or at no cost at all, the results of tests which will help him in his practice. It is more important for a hospital to teach a doctor in its neighborhood or perform for him the new, yet essential, laboratory tests than it is to do these tests for nothing upon a charity patient. I believe that the next forward step in the treatment of diabetes in the home—and that is where the majority of diabetics will always be treated—lies in making it easy for the general practitioner to have all the information that we in the hospital feel we must possess. Our hospital laboratories must be thrown open to the entire medical profession.

Diabetics seldom die of diabetes today. When they come for a visit to a doctor the doctor should never make it a routine, should never be content with an examination of the urine and a blood sugar test and a word about diet and weight, but he should look upon that patient as a trust, and insure him not only against the complications of diabetes, but against other diseases as well. No doctor should be just a diabetic specialist. The family doctor is the best doctor for a diabetic, because he is the one who can treat the patient from every angle. I believe that diabetic patients should be treated in their homes by the family physician, oftentimes in co-operation with another physician who sees more diabetics. I feel that if I can co-operate with a doctor in the treatment of one case of diabetes the chances are that that doctor will treat successfully ten other cases without me. I know I often fail of attainment of my purpose, because it is so easy for patients to come back to the office, but the intention is there, and I try to live up to it.

Indeed a diabetic in the family should be looked upon as an asset, a help to the health of all its members. He is the teacher of diet and cleanliness, a

force for hygiene. His family should become immune to diabetes. I try to teach my diabetics to lessen the dangers of diabetic heredity in their families by banishing obesity, to lessen arteriosclerosis, to avoid infections, and to live above the plane of tuberculosis.

Diabetics are Living, not Dying—Today it is the problem of the living diabetic rather than the dying. More than half of the diabetic children I have treated since 1898 are alive. During the year ending July, 1926, of the 185 living diabetic children on my rolls there were but five who died. Among 1138 true diabetics, old and new, who came for treatment last year there were but sixty deaths. In the year 1916 the percentage of deaths was 10 per cent, but this year the deaths were 5.3 per cent. It is noteworthy that no patient seen by me in the twelve months died at below the age of 15 years, and there were but three who were under the age of 30 years. Therefore in your future practice plan for the living diabetic.

Remember, too, that these modern diabetics will get married and rear families. With a diabetic boy this is allowable, but for a diabetic girl who contracts diabetes under 15 I have set a ten-year limit for the duration of the disease before entering upon matrimony. These girls need never, therefore, be over 25 years of age before marriage, and that is not too long to wait. Incidentally I will put on record that the catamenia of two of my patients returned after an absence of six years and six and a half years, respectively. Wilder has recorded a successful outcome of pregnancy in two severe cases of diabetes. I have seen the same. Following delivery both mother and child must be watched closely for hypoglycemia.

The Duration of Life of the Diabetic—In the Naunyn epoch the average duration of life of 331 of my fatal cases of diabetes was 4.8 years. The

TABLE 3
DURATION OF LIFE IN FATAL CASES OF DIABETES ARRANGED IN DECADES

| Decades of onset, years | Before June, 1914 | | After June, 1914, to March 16, 1922 | | July 1, 1922— July 1, 1926 | |
|-------------------------|-------------------|-------------------|--|-------------------|-------------------------------|-------------------|
| | No. of cases | Duration years | No. of cases | Duration years | No. of cases | Duration years |
| 0— 9..... | 25 | 1.2 | 47 | 2.7 | 16 | 2.7 |
| 10—19..... | 39 | 2.9 | 69 | 3.3 | 48 | 2.9 |
| 20—39..... | 80 | 3.9 | 162 | 5.3 | 114 | 6.9 |
| 40—59..... | 137 | 6.9 | 216 | 8.1 | 344 | 8.4 |
| 60—89..... | 50 | 4.5 | 103 | 6.1 | 134 ¹ | 5.4 |
| 0—89..... | 331 | 4.8 | 597 | 6.0 | 656 | 7.0 |

1. One case duration unknown, making total deaths 657.

Allen epoch—and we recognize that F. M. Allen was given to the diabetics by California—raised this figure for 597 fatals to six years. Thus far in the Banting epoch there have been 652 fatal cases, and the duration of these averages seven years. The data are recorded in Table 3.

TABLE 3

The average increase in duration of life of the diabetic today over that of the Naunyn era is 2.2 years, or 45 per cent. But this does not represent the true change in longevity, because it is the old, not the young, diabetic who is dying. The proportionate number of deaths in the early decades has greatly decreased. In the Naunyn epoch the deaths of those with onset in the first decade constituted 7.5 per cent of the total number; in the present epoch they constitute only 2.5 per cent. In the Naunyn epoch the deaths of those with onset at over 40 years were 57 per cent, they are now 73 per cent. The average age of the sixty patients who died from among the 1138 patients I saw during the year ending July 1, 1926, was 59 years. This is ten years above the average age at death of the citizen of Massachusetts and a year above that of the expectation of life of the new-born child.

A better idea of the future duration of diabetics is shown by the living children. Among 395 cases there are 8 or 2.0 per cent, three dead and five living, who have suffered diabetes more than a decade and no doubt exists about the accuracy of the diagnosis of six of these cases. The statement, therefore, is justified that with children even with old methods there were between 1 and 2 per cent who lived more than ten years. It so happens that this is about half the percentage of adults who have lived over twenty years, namely, 142 cases in the first 4257 true diabetics (see Table 6) coming to me for treatment. But the increase in duration of life of the child is progressing far more rapidly than in the adult. Diabetes begins so late in life that it is clear the old conceptions of its relations will be reversed. Today the young diabetic will be the long-lived diabetic, and the old diabetic will have the shorter duration.

I have purposely dwelt long upon the increasing

duration of life of the diabetic because of the relation it bears to the outlook for the diabetics in general. They are playing a larger part in the life of the community than formerly. This is not because the number of individuals who develop the disease is growing, but simply because those who have it live longer. This is very well shown in a table compiled by Angeline Hamblen for the adjusted death rate for diabetes in Massachusetts and in the registration states.

TABLE 4
ADJUSTED DEATH RATE FOR DIABETES IN
MASSACHUSETTS AND IN THE
REGISTRATION STATES

| Year | Registration States | Massachusetts |
|-----------|---------------------|---------------|
| 1900..... | 10.4 | 11.1 |
| 1910..... | 14.9 | 18.0 |
| 1920..... | 15.9 | 18.4 |

There was a sharp increase in diabetes between 1900 and 1910, namely, from 11.1 to 18 per 100,000, but by 1920 the incidence had hardly changed. On the other hand, the true number of living diabetics must be far greater today. Whether there were 500,000 or a 1,000,000 diabetics in the United States in 1914 I do not know, but if the former figure was correct there must be over 700,000 now, and if the latter figure was nearer right there would be 1,400,000 now. The diabetic problem is therefore a real one and demands increasing thought. It will require many readjustments in our methods of life.

The Change in the Causes of Death in Diabetes—The causes of death in diabetes must exert a strong influence upon our attitude toward the outlook for the diabetic. A glance at Table 5 will show the extraordinary metamorphosis which the disease has undergone in this respect. In the Naunyn epoch 66 per cent of my fatal cases died of coma, and 87 per cent of all the diabetics whom the disease destroyed during its first year died of coma, and all the children died of coma; as late as 1922, 51 per cent of all cases died of coma; between 1922 and July 1, 1925, 28 per cent. Contrast these figures with the 10 per cent mortality due to coma this

TABLE 5
CAUSES OF DEATH

| | 1898— March 16, 1922 | | March 16, 1922— July 1, 1926 | | July 1, 1925— July 1, 1926 | |
|--------------------------------|-------------------------|---------|---------------------------------|---------|-------------------------------|---------|
| | Cases | Percent | Cases | Percent | Cases | Percent |
| a. Coma Present | 454 | 51 | 166 | 28 | 6 | 10 |
| b. Coma Absent | 433 | 49 | 431 | 72 | 54 | 90 |
| 1. Cardio-renal, vascular..... | 155 | 17 | 183 | 31 | 22 | 37 |
| 2. Infections..... | 141 | 16 | 128 | 21.5 | 15 | 25 |
| 3. Tuberculosis..... | 51 | 6 | 30 | 5 | 2 | 3 |
| 4. Cancer..... | 35 | 4 | 31 | 5 | 6 | 10 |
| 5. Inanition..... | 21 | 2 | 3 | 5 | 0 | 0 |
| 6. Miscellaneous..... | 30 | 3 | 44 | 7.0 | 9 | 15 |
| 7. Diabetes..... | ... | .. | 12 | 2 | ... | .. |

last year. There were sixty diabetic deaths and among these 1138 cases coma picked just six victims. Picture to yourself these diabetic patients whom I chanced to see but one or more times, who later were wandering up and down the length and breadth of this land and in other countries and continents too, and yet the medical profession and the patients were so intelligent that only six individuals died from this cause. I consider these figures as high a tribute to the progressive ideas and open-mindedness for new methods of treatment by the medical profession as one can adduce. Insulin alone never brings a patient out of coma. Intelligence in its use must go hand in hand with it.

TABLE 5

The significance of this great change in the causes of death in diabetes is more fundamental than the mere recital of the figures implies. Not only is diabetes *per se* no longer as fatal as formerly, but hardly can be considered fatal at all. It is not the disease directly which kills the patient, but its complications. Diabetes has had bad companions and they have given her a bad reputation. But in another way the altered character of deaths is even more significant. Formerly when coma developed we doctors put the blame on the patient, but now the causes of death are of such a character that the patient will be placing the blame upon us.

Next to coma come cardiorenal and vascular diseases, the degenerative diseases of old age. Such causes of death might be anticipated because the average age of death of my patients last year was 59 years, and already your attention has been directed to Miss Hamblen's statistics, which show that 86 per cent of the deaths from diabetes in Massachusetts occurred after the age of 51. As coma has gradually decreased, so these diseases have gradually increased. Cardiorenal and vascular diseases seem almost hopeless to attack, but I am not so skeptical, now that insulin allows the increase of carbohydrate and the decrease of fat in the diet.

Infections caused fifteen deaths, 25 per cent, among the patients who died last year. This was the highest percentage of deaths from infections yet reached in any tabulation of my deaths. The major proportion of these were preventable, because due to local, not general, infections. These found entrance through the skin and resulted in abscesses, carbuncles, and more especially the infections associated with gangrene. Will not our patients expect us to teach them how they can escape such needless deaths?

Tuberculosis caused but two deaths, 3 per cent. Cancer was as fatal to my diabetics last year as coma, for there were six cases of each. It has increased as a cause from 4 per cent prior to 1922 to 10 per cent today, thus exhibiting plainly the trend of the diabetic to grow old.

Inanition disappeared as a cause of death, and the other causes were of most miscellaneous character and were such as might occur with any group of patients.

Diabetic patients frequently die in hospitals, and this is quite as it should be. One-sixth of all the diabetics who die in Boston die at the Deaconess Hospital. We are glad to receive the critical diabetic. The ordinary diabetic should be treated in the home. It is quite proper that the serious diabetic or the apparently hopeless diabetic should be sent to the hospital. There is a pleasure in fighting the disease in such patients and a great reward, because so many who have been thought utterly helpless recover. We have a rule at the Deaconess Hospital that diabetic coma and diabetic gangrene are just as much emergencies as a fulminating appendicitis or a ruptured duodenal ulcer, and when these patients arrive at the hospital treatment is carried out with the same earnestness and despatch as with these avowed emergencies. Last year, of the sixty deaths twenty-six occurred in the hospital, and in the last three years and a half the total deaths in the hospital from diabetes have reached sixty-five. Of

these twenty-eight were medical and thirty-seven surgical. Of the medical patients admitted 1.6 per cent died; of the surgical diabetics the mortality was 10 per cent, six times as great. Moral: The surgical diabetic demands six times the attention given to the medical diabetic and more, for he demands the attention of the physician as well as the surgeon. In passing I might add that the number of diabetics being operated upon is rapidly increasing.

Autopsies Upon Diabetics—Shields Warren is reporting autopsies upon eight of my diabetic children either by himself or various pathologists during the last twenty-five years and, in addition, Dr. John of Cleveland and Doctors Stansfield and Starrow of Worcester have contributed two other cases to the list. These are instructive. In no instance do they show the pancreas to be exhausted, much less the islands. Hyalin degeneration, common in the pancreas of the old diabetic, was absent and lymphocytic infiltration, rare in the pancreas of the old, was invariably present. Hydropic degeneration was disclosed in but a single case. The changes in the gland did not appear irreversible and for these to take place time appeared to be a large factor. I mention the paper chiefly because I believe the field for morphological studies upon the diabetic pancreas has been by no means exhausted and that we clinicians should secure for our pathologists more such opportunities for research. No report of a diabetic fatality today is of great significance without a statement of the postmortem examination.

How should our patients regard an autopsy? It should be looked upon simply as an operation. Statistics suggest that every other diabetic goes to the surgeon during the course of his disease. If every other diabetic must be operated upon before he dies I believe that every diabetic should be operated upon after he dies. An operation during life is attended with pain and is for the benefit of the individual. An operation after death is without pain, but for the good of humanity.

Such examinations should be performed within three hours after the death of the patient. A few thin sections of the pancreas one-fourth inch wide should be taken from the head, tail, and body of the gland and placed in a preserving fluid (Zenker's fluid is the best), but if unavailable a 10 per cent solution of formaldehyde could be substituted, or one could use 95 per cent alcohol.

(To be continued in the March issue)

Rip Van Winkle, the nickname given to the armored dinosaur which has recently been placed on exhibition in the London Museum of Natural History, was a vegetarian, according to the label attached by naturalists to its glass case, says the *New York Times*. Thus it has taken thirty million years to explode the myth that the animal was a murderous monster and terror to such men as Mr. Neanderthal and M. Cromagnon, the most famous of the prehistoric people. According to the naturalists a tiny disease-carrying flea, which occupies a case adjoining that of the dinosaur, was a far deadlier creature.—*M. J. and Record*.

Those Busy Bees—The Charity Organization Society, New York City, has records on 3300 social welfare agencies which have sought public support in the city or upstate. Of this number 1450 are active at the present time.—*Health News*, New York State Department of Health.

A SURVEY OF PRENATAL CARE IN CALIFORNIA *

By ADELAIDE BROWN, M. D.

Member California State Board of Health.

ACCUMULATING facts from which any deductions can be drawn on the medical procedures of individual physicians is treading on delicate ground.

It is necessary to rely on questionnaires, and unless the woman answering a prenatal questionnaire is quite intelligent her answers may be misleading. Our first survey of 144 cases for prenatal care, babies under 6 months of age, was made in San Francisco in 1922. The answers were taken by two trained nurses, and the questions carefully explained—that is, as to pelvic measurements and blood pressure. In no case was the name of the doctor or hospital included.

In the second group studied, in July, 1925, 146 cases were surveyed. These mothers had babies under 6 months of age, thus in no way overlapping the first group. The answers were written down by an intelligent laywoman, who had for illustration a pelvimeter and a blood pressure apparatus. These were San Francisco cases, and the groups were both from the Children's Health Center of the American Association of University Women and the Emporium Baby Center of the San Francisco Board of Health. Both places attract an intelligent group of young mothers, the wives of clerks, street railway employees, postmen, mechanics, etc. They are a rather uniform group.

In the third group, numbering 129, surveyed in 1926, the questionnaire was answered by mothers with babies under 6 months, the births not under the same doctor, in most cases. The answers were written down by the nurse taking the record. They cover twelve counties, six in the northern and six in the southern part of the state, sixty-five mothers in one group and sixty-four in the other. We avoided towns of any considerable size, desiring to get the average of prenatal care throughout the state. The points brought out are tabulated as follows: In general these cases were confined by private physicians; out of 417 cases only three were delivered by midwives. For the purpose of comparison, we have charted the 1922 and 1925 cases from San Francisco as urban cases, and the 1925 cases from the state at large as rural cases.

CHART 1

| Urban | | | Rural |
|-------|------|---------------------|-------|
| 1922 | 1925 | | 1925 |
| 34 | 7 | Home deliveries | 88 |
| 110 | 139 | Hospital deliveries | 44 |
| 144 | 146 | Total | 129 |
| 112 | 127 | Private doctor | 118 |
| 30 | 19 | Staff doctor | 10 |
| 1 | 0 | Midwife | 1 |
| 143 | 146 | Total | 129 |

* Read before the San Francisco County Medical Society, August, 1926.

| Urban | | CHART 2 | Rural |
|-------|------|----------------------------|-------|
| 1922 | 1925 | | 1925 |
| 90 | 99 | First baby..... | 59 |
| 21 | 30 | Second baby..... | 25 |
| 9 | 11 | Third baby..... | 21 |
| 23 | 6 | Later baby..... | 14 |
| 110 | 103 | Normal delivery..... | 101 |
| 24 | 35 | Instrumental delivery..... | 26 |
| 4 | 3 | Breech..... | 6 |
| 5 | 5 | Caesarean section..... | 3 |

These tabulations show several things clearly:
First. That in all three groups prospective mothers consult physicians early in pregnancy.

| Urban | | CHART 3 | Rural |
|-------|------|---------------------|-------|
| 1922 | 1925 | When Engaged Doctor | 1925 |
| 27 | 49 | 1-2 months..... | 45 |
| 22 | 34 | 3 months..... | 21 |
| 22 | 25 | 4 months..... | 12 |
| 10 | 11 | 5 months..... | 4 |
| 15 | 11 | 6 months..... | 11 |
| 13 | 16 | 7 months..... | 10 |
| 8 | 0 | Later..... | 15 |
| | | In labor..... | 8 |

Second. Complete physical examination is made in urban cases more frequently.

| Urban | | CHART 4 | Rural |
|-------|-------------------------------|---------|-------|
| 1925 | Complete Physical Examination | 1925 | |
| 105 | Yes..... | 66 | |
| 41 | No..... | 63 | |

In San Francisco (1925) eighteen cases had no physical examination and no prenatal care. Twelve of them were primiparae.

Third. That in prenatal care the urine is quite uniformly examined, and frequently.

| Urban | | CHART 5 | Rural |
|-------|------|---------------------------------|-------|
| 1922 | 1925 | Prenatal Examination Urinalysis | 1925 |
| 21 | 59 | Every two weeks..... | 31 |
| 40 | 76 | Every month..... | 38 |
| 8 | 0 | Every two months..... | 3 |
| 6 | 6 | Once..... | 15 |
| 12 | 4 | Twice..... | 11 |
| 48 | 3 | No prenatal examination..... | 16 |

Fourth. That pelvic measurements have been more generally made in the second group in San Francisco; U. C. 1925.

| Urban | | CHART 6 | Rural |
|-------|------|--------------------------|-------|
| 1922 | 1925 | Prenatal Examination | 1925 |
| 121 | 130 | Urinalysis..... | 74 |
| 20 | 5 | No urinalysis..... | 33 |
| 3 | 11 | One urinalysis..... | 13 |
| 27 | 41 | Weight recorded..... | 29 |
| 117 | 105 | Weight not recorded..... | 95 |
| 67 | 90 | Pelvis measured..... | 55 |
| 77 | 56 | Pelvis not measured..... | 70 |

Fifth. That blood pressure and pulse rate receive increasing attention.

| Urban | | CHART 7 | Rural |
|-------|------|-------------------------------|-------|
| 1922 | 1925 | Prenatal Examination | 1925 |
| 76 | 98 | Blood pressure taken..... | 62 |
| 68 | 48 | Blood pressure not taken..... | 64 |
| | | Pulse rate taken..... | 69 |
| | | Pulse rate not taken..... | 56 |

Sixth. That the importance of weight observation and control of an over-rapid increase has not received much attention. (See Chart 6.)

| | | CHART 8 | Urban |
|--|--|---------|-------|
| | | | 1922 |
| No external or internal examination after third month..... | | | 3 |
| No external or internal examination after fourth month..... | | | 7 |
| No external or internal examination after fifth month..... | | | 16 |
| No external or internal examination after sixth month..... | | | 15 |
| No external or internal examination after seventh month..... | | | 26 |
| No external or internal examination after eighth month..... | | | 31 |
| No external or internal examination after term..... | | | 9 |
| External or internal examination in labor..... | | | 16 |
| | | | 1925 |
| No external examination..... | | | 43 |
| No internal examination..... | | | 47 |

Seventh. A complete analysis of the matter of internal and external examination shows a great variety of custom and little sense of the value in the first two months of pregnancy of the internal examination, and the corresponding importance in the seventh and eighth months of a series of external examinations as a guide to the prognosis of labor, both in the presentation and position of the child and in its approximation to the maternal passage. Rectal examinations were not surveyed. In 1922 fifty-seven examinations out of a possible 144 in San Francisco were made in the seventh and eighth months. Thirty-five cases were examined prior to the seventh month, and thirty-six had no external or internal examination prior to labor. Two Caesareans were in this group.

Eighth. A careful study of the rural cases impresses one with the facts that operative deliveries were 1 to 5, or 20 per cent, whereas in San Francisco in 1922 they are 16.7 per cent, 1 to 6, and in 1925, 29.5 per cent, or 1 to 3. Does this increase bear any relation to the extensive hospitalization of maternity cases in San Francisco? (See Chart 2.)

The suggestion has been made that in San Francisco a five-year study of infant mortality could be made for the neonatal period, that is, from birth to 14 days of age, by reviewing the hospital records of the last three years, and including 1926 and 1927. An increasing number of our maternity cases are delivered in hospitals. The statistics of 1919 show 56 per cent, of 1922, 65 per cent, and since that date the large maternity service of the St. Francis Hospital has been developed.

The five causes for death of the new-born, as given by the United States Census Bureau, are toxemia, traumatism, syphilis, congenital defects and debility. How far does this 13 per cent increase in forceps deliveries influence the traumatic deaths of the infant? There is need for such analyses if we are to grasp and try to reduce the 47 per cent of the infant mortality of the first year of life, which occurs in the first month.

We may learn also from the general practitioner in the rural districts that he assumes a responsibility in teaching the mother the care of the baby,

CHART 9

| Urban 1922 | Instruction on Care of Baby | Rural 1925 |
|---------------|--|---------------|
| 48 | Nurse | 66 |
| 9 | Doctor | 72 |
| 0 | Intern | 1 |
| 87 | No instruction | 21 |
| | Instruction from nurse and doctor both | 39 |

and the nurse does the same. To bridge this gap in the San Francisco maternity care, an instructive visit after the baby and mother leave the hospital was offered to private physicians by an expert obstetrical nurse under one of the organizations assisted by the Community Chest. This service was requested by 250 physicians at several of our large maternity hospitals during the last two years. A similar service is still given by the San Francisco Hospital and to the ward patients at the University of California and Stanford hospitals, but this had to be cut out for the private physicians, as the budget of the Community Chest necessitated cuts in all organizations financed by them. After six months, it has been re-established as meeting a real need.

The lack of appreciation of the value of a complete physical examination as a preliminary to prenatal care shows up clearly in these statistics. (See Chart 4.) No more impressive words came from Dr. Emmett Holt in his last visit in San Francisco than these: "Our greatest fault as physicians is that we do not use all we know."

A pamphlet called "Standards of Prenatal Care" has been issued during the past year by the Children's Bureau, and distributed with a record blank for care during pregnancy. This pamphlet expresses the combined judgment of seven professors of obstetrics and associate professors in seven university medical schools. California is represented by Dr. Frank W. Lynch, Professor of Obstetrics and Gynecology, University of California Medical School; also, Dr. George Clark Mosher, chairman of Committee on Maternal Welfare, American Association of Obstetricians and Gynecologists, and Dr. Ralph W. Lobenstein, chairman of the Medical Advisory Board of the Maternity Center Association of the City of New York; and the medical directors of the Bureau of Child Hygiene of the New York State Board of Health and the Kentucky State Board of Health. The points not covered in our questionnaire, and given in this national set of standards, are the taking of the temperature of cases at each prenatal visit, and the blood for a Wassermann test, and including the transverse diameter of the outlet with the external pelvic measurements. This pamphlet and the chart for pregnancy records can be obtained from the Bureau of Child Hygiene of the State Board of Health, State Building, San Francisco.

The education of the public on the necessity of prenatal care has been vigorously carried on by the Children's Bureau of Washington under the Infancy and Maternity Welfare Division. This stimulation and interest in prenatal care and the importance of childbirth as a forerunner of health or invalidism shows in the early call on the physician and the co-operation in regular visits. The work of

CHART 10

| Urban 1922 | Urban 1925 | Who Sent You to Health Center or Public Health Nurse? | Rural 1925 |
|---------------|---------------|---|---------------|
| 1 | 11 | Doctor | 14 |
| 119 | 110 | Friends | 11 |
| 4 | 6 | Nurse | 7 |
| | | Visit of nurse | 19 |
| 17 | — | Board of Health | |
| | 10 | Reading in paper | |
| | | Metropolitan Life Insurance Co. | 9 |
| | | Self | 18 |

public health nurses, subsidized by the Government grant to our state, stimulates and spreads the knowledge of the value of this early care by the doctor. The end result of education in health is to make a more intelligent and therefore more critical laity.

It may be of interest to you to know that the maternal mortality rate per thousand live births in 1920 in California was 7.1, and per thousand total births, including stillbirths, was 6.8. In 1924, was 5.2 per thousand live births, and 5.1 per thousand total births, including stillbirths. This means, as there were 86,900 births in 1924, a saving of 185 mothers. In addition we must always remember that approximately 35 per cent of the puerperal deaths are deaths from sepsis, and the next largest toll gatherer in toxemia.

In closing, I wish to acknowledge the statistical work on the 1925 questionnaires done by Mrs. Flora May Fearing of Stanford University, instructor to public health nurses in the Stanford Public Health Nursing Course, and the co-operation of the San Francisco Board of Health and the Children's Health Center of the Association of University Women in furnishing us the privilege of collecting data from their mothers, and to the nurses subsidized by the Infancy and Fraternity Welfare grant from the Children's Bureau and co-operating under the Bureau of Child Hygiene, California State Board of Health, August, 1925.

Epidemic Meningitis—Most of the laity and many physicians think that patients recovering from epidemic meningitis are liable to be seriously handicapped, especially in their mental development. For this reason Josephine B. Neal, Henry W. Jackson, and Emanuel Appelbaum, New York (*Journal A. M. A.*), have followed up as many of their patients who recovered as possible to learn what percentage of cases show after-effects, and the nature of them. The mortality for 627 cases was 29.8 per cent. The mortality was highest among patients under 1 year of age (46.5 per cent); among patients over 30 it was 30.8 per cent; from 1 to 2 years it was 29.2 per cent. The great majority of patients, 82 per cent, make a complete recovery. About 18 per cent show sequelae, and these are often of a serious nature. The most important and frequent of the sequelae is deafness (7.7 per cent). Defects of vision are of rarer occurrence (2.1 per cent); paralysis occurred in 3.2 per cent; mental disturbances in 2.3 per cent. Rarer but nevertheless important sequelae were also encountered. In two instances there were sphincteric disturbances—one rectal and one vesical. One patient developed a pachymeningitis nearly two years later. Another patient developed a complete transverse myelitis, which had its inception early in the convalescent period.

"The Passing of the Professor" by Otto Heller, and "Who is a Moron?" by Henry H. Goddard, published in the January issue of the *Scientific Monthly*, contain information of value to physicians.

HISTOLOGY AND MORTALITY IN TUMORS OF THE PROSTATE, BLADDER, AND KIDNEY

By A. J. SCHOLL.*

The postoperative data in a series of cases of tumor of the prostate, bladder, and kidney was correlated with the histologic structure in an endeavor to establish an index of malignancy.

There are two types of prostatic carcinoma: the first type, which has a lower degree of malignancy than the second, corresponds closely to the normal or glandular structure of the prostate. The second type is made up of irregular masses of cells with no attempt at differentiation.

The common epithelial tumors of the bladder are also divided into two primary groups: the malignant papilloma and the solid carcinoma. The first group, which is made up of tumors retaining to a considerable extent the characteristics of the bladder mucosa and the benign papilloma, is of a much less degree of malignancy than the solid carcinoma group.

Tumors of the kidney are divided primarily into the papillary adenocarcinoma and the alveolar carcinoma groups. The papillary adenocarcinomas correspond to the so-called hypernephroma group and are of several different types with corresponding degrees of malignancy. The alveolar carcinoma group is a small one; the tumor, which is highly malignant, tends to reproduce the tubules of the adult kidney.

The difficulty or ease of surgical removal of tumors must be considered a most important factor in regard to prognosis regardless of the inherent malignancy of any tumor.

BRODERS¹ states that a neoplasm can only accomplish what its cells can accomplish; if its cells are active it is active. A neoplasm may be of papillary form and of a low degree of malignancy, or it may be papillary and of a high degree of malignancy. Broders studied a large series of malignant growths and devised a method of measuring the degree of malignancy in neoplasms. His method, or index of malignancy, depends on the fact that the more a neoplastic cell approximates in structure to a normal cell the lower is the degree of malignancy.

Martzlöff² several years later in a study of epidermoid cancers of the cervix found that the cancer cells fell morphologically into three large cell divisions, transitional, fat spindle, and spinal cell groups. The spinal cell type are the least malignant, the transitional cell next in order of malignancy, and the fat spindle cell was most malignant. The adenocarcinomas, a group apart from the epidermoid tumors in regard to their relative malignancy, fell between the spinal cell and the transitional cell group. In this study Martzlöff developed a grouping of cases according to the degree of malignancy which was of value in the determination of prognosis.

Broders' index of malignancy, dealing as it does with the various transition forms of a single type of tumor, the epithelioma, is almost mathematically accurate. The grading, or correlating of the histology with mortality in tumors occurring in organs of complex cellular structures, does not permit of

such accurate deductions as Broders obtained in his study of superficially located epitheliomas. In operations on internal organs in which the growth at times involves vital structure there are several factors and procedures which disturb the relationship between the histologic index and the outcome of surgical procedures. The most important of these is the immediate operative mortality. There is a low operative mortality connected with the removal of a superficial epithelioma even though the local glands are also resected. On the other hand, in the removal of a bladder or renal tumor the degree of malignancy may be low, but the tumor is at times large, bulky, hemorrhagic and exceedingly difficult to remove completely. This is also true in the surgical removal of a carcinomatous prostate, the smaller fibrous prostates being of a much higher degree of malignancy than the large, glandular type which so readily extend along the seminal vesicles and paravertebral glands.

The complete eradication of all possible foci of malignancy, which might serve as a source of recurrence, is also a factor which may vary the outcome after operation. In the majority of cases metastases or local extensions depend on, and vary directly with, the degree of malignancy.

With several minor limitations the correlation of the histologic structure with the postoperative data is of decided prognostic value, and was carried out with a series of malignant tumors of the prostate, bladder, and kidney.

The various types of tumors which must be grouped separately for each organ have been found to fall into several distinct groups; each group has a definite individual degree of malignancy the knowledge of which may be of aid in determining the need of further surgical procedures and possible outcome of surgical treatment.

Carcinoma of the Prostate—The prognosis in cases of carcinoma of the prostate surgically removed is not influenced by the type of operation nor, markedly, by the extent of the growth. There are as many deaths, and they occur as readily in the suprapubic operation as they do after the perineal removal. The type of growth removed is the greatest factor in determining the prognosis.

Pathologically there are two types of prostatic carcinoma which have a corresponding clinical picture, as well as a corresponding postoperative course. The first type, which is of a much lower degree of malignancy than the second, is made up, histologically, of cells and glands corresponding closely to the normal or glandular structures of the prostate. The cells are fairly regular in size and shape and retain the long, tufted end projecting into the glandular lumen which is one of the most significant features of prostatic epithelium. The nuclei are round, relatively larger than the nuclei found in normal or hypertrophied glands, and contain the distinct nucleoli which are so prominent in undifferentiated cells. Clinically these prostates are large, nodular, stone-hard, and produce marked symptoms of obstruction. The second type of cancer is usually made up of irregular masses of cells having no tendency to conform to the usual glandular type of

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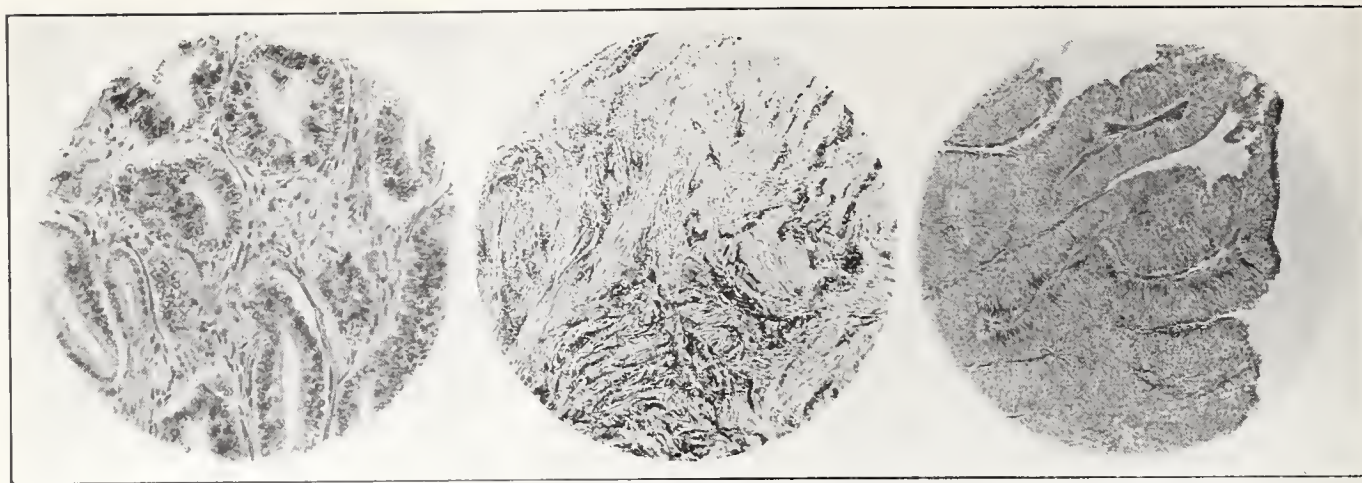


Fig. 1—Type I prostatic cancer. Glandular type of malignancy resembling normal prostatic tissue. (X 100.)

Fig. 2—Type II prostatic cancer. Irregular wedges of tumor cells containing deeply staining nuclei. (X 50.)

Fig. 3—Malignant papilloma. (X 50.)

prostatic epithelium. The cells vary in size and arrangement. They comprise great masses, or extending wedges of tightly packed cells containing large, deeply staining nuclei. In other cases the cells are loosely arranged, separated and supported by small amounts of connective tissue. In some prostates of this type there is an excess of fibrous tissue and the cells may have disappeared completely or are pressed out into bizarre lines and streaks. At times these cells are recognized only on account of the deeply staining nuclear fragments which persist. When glandular formation does occur the glands are composed of flat cells, grouped together irregularly and containing very large nuclei. Clinically prostates of this second type are small, fibrous and firmly fixed; they are extremely malignant, metastasize readily and are often unrecognized, since paralysis may occur as a result of metastasis before the glands have reached sufficient size to produce urinary symptoms. Unquestionably there are some prostatic carcinomas that contain elements of both types, and it may later be determined that they both have a common mother cell or type.

The first type of carcinoma is occasionally found in association with hypertrophy; urinary obstruction, which occasionally occurs, results in prostatectomy while the carcinoma is still in an early stage. The second type is rarely discovered except in advanced cases. In a review of cases of prostatic carcinomas studied in association with Judd and Bumpus³ at the Mayo Clinic, we found that 50 per cent of the first type were alive from one to six years after operation. Forty per cent of those that died lived over three years. Ninety per cent of cases having the second type of cancer were dead, none had lived more than three years after operation, and 50 per cent had died the first year after operation.

Tumors of the Bladder—In the removal of large tumors of the bladder the immediate mortality resulting from the surgical procedure is at times high. In those cases surviving the immediate effects of the operation the type of tumor or degree of malignancy is of decided importance in the determination of the prognosis. The location of the growth is also important; if it is in an accessible area it may be removed completely, otherwise a permanent cure is not possible.

The simplest grouping of the common malignant epithelial tumors of the bladder divides them into two groups, the malignant papillomata and the solid carcinomas; terms which suggest the gross and histologic structure of the two types of tumors. The malignant papilloma group is made up of tumors that retain their pedicle and are composed of clubbed fronds; grossly they usually have an irregular outline and at times attain a large size. Histologically many cells are found to retain the regularity of disposition occurring with benign papilloma; in other areas they are undergoing the various transitional stages of malignancy.

The solid tumors are of two types: the widespread papillary epithelioma, and the low, flat, infiltrating, carcinoma. The papillary epithelioma is a friable, often flabby or soft tumor with a tendency to split in cleavage planes; this tumor rapidly covers the surface of the bladder. Histologically, remnants of the supporting elements of altered papillae and the grouping of the cells indicate its relationship to the papilloma. The infiltrating type of solid carcinoma are usually firm and compact and tend to extend into the walls of the bladder. These tumors rarely contain remnants of papilloma. The cells of both types of solid tumors are usually very large and contain prominent nucleoli. They are crowded together without form and with only a small amount of intervening connective tissue; mitotic figures are common.

In a series of cases⁴ in which the different types of malignancy were correlated with the postoperative data it was found that 36 per cent of patients with malignant papilloma were dead after a postoperative duration of life of almost one year. Fifty-three per cent were alive on an average of over two years after operation. In contrast to this, over 70 per cent of patients with the second or solid type of carcinoma were dead after an average duration of life of seven months. Only 28 per cent were alive for an average of three years after operation.

Squamous cell tumors of the bladder develop as a result of metaplastic changes in the bladder, usually resulting from the irritation of infection or calculi. These tumors grow rapidly, cause few local symptoms and metastasize extensively. They are the most malignant of the epithelial tumors of the blad-

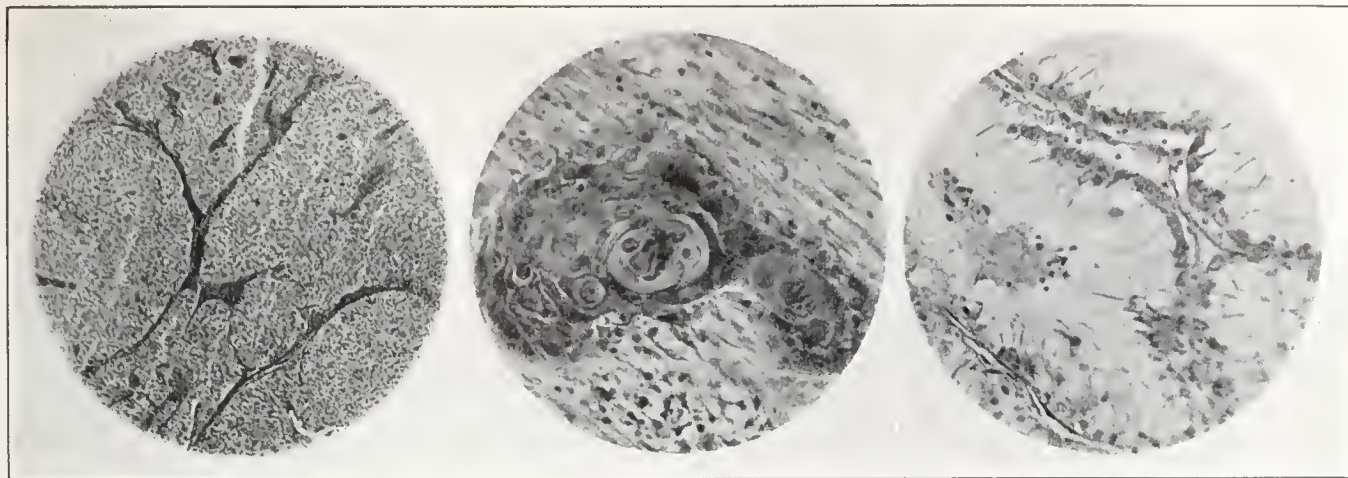


Fig. 4—Solid epithelioma of bladder. (X 50.)

Fig. 5—Squamous cell tumor of the bladder. (X 200.)

Fig. 6—Papillary adenocarcinoma of the kidney with clear cells. (X 200.)

der and practically always cause death shortly after the appearance of local symptoms.

Adenocarcinomas of the bladder are an individual group. They tend to locate in the dome of the bladder, readily penetrate the bladder wall and recur readily. They offer the patient about the same chance of a permanent cure as does the malignant papilloma.

Tumors of the Kidney—Malignant epithelial tumors of the kidney are divided into two main groups, first suggested by Ewing,⁵ papillary adenocarcinoma and alveolar carcinoma. The papillary adenocarcinomas correspond to the so-called hypernephroma group; they are moderately malignant, grow to a large size, metastasize only in the later stage, and frequently become hemorrhagic or cystic. In a series of cases studied with Braasch and Foulds⁶ we found an operative mortality in this group of cases of 8.5 per cent. Fifty-four per cent of the remainder were alive and well six years after operation.

The first main group of papillary adenocarcinomas are made up of three different types of tumors:

1. Papillary adenocarcinoma with clear cells.
2. Papillary adenocarcinoma with granular cells.
3. Malignant cystadenoma.

The tumors of each group have a clearly defined histologic structure and a corresponding clinical course. The carcinomas with the clear cells form large bulky tumors usually well demarcated from the uninvolved portion of the kidney. They are vascular and frequently cystic. Ten per cent of patients with this type of tumor died following operation. Fifty per cent of the patients traced were alive and well for an average of five years after operation.

The papillary adenocarcinomas with granular cells are more uncommon and of a higher degree of malignancy than the clear cell group. They form small, usually compact, homogeneous tumors with a marked tendency to infiltrate and involve neighboring structures. They grow more rapidly than the first group, consequently the thick encapsulation and hemorrhagic necrosis of clear cell tumors is not so marked. This group has the same operative mortality as Group 1, but only 31 per cent were found alive and well for an average of eight years after operation.

The third group, the malignant cystadenomas, are not common. They usually do not extend to the surrounding tissues and are slow growing, rarely attaining a large size. These tumors are generally easily removed surgically, and at times give evidence of slow growth and long existence, thick fibrous capsules and areas of hyalinization being usually found. No patient with this type of tumor died following operation; 72 per cent of the patients traced were alive and well seven years after operation.

The second main group, the alveolar adenocarcinomas, is a small one. These tumors are highly malignant, readily breaking through the renal capsule and invading surrounding structures. They have a tendency to reproduce the tubules of the adult kidney resembling the renal parenchyma. In some areas the cell structure forms definite alveoli, in others there is very little differentiation, merely a clumping or matting together of irregularly shaped and irregularly packed cells. This group had an operative mortality of 15 per cent and only 13 per cent of the remainder were alive and well for an average of ten years after operation.

The only clinically important tumor of the renal pelvis is the papillary carcinoma. The local growth is usually of about the same degree of malignancy as the grossly similar tumors occurring in the urinary bladder. The prognosis in these cases is greatly influenced by the ramifications of the growth, the numerous locations for secondary deposits, and the persistency of recurrence. The actual malignancy of the original tumor is usually not of a high degree, but on account of the difficulty of surgical removal this tumor offers the patient a very poor prognosis.

Squamous cell tumors of the kidney usually originate in the renal pelvis and rapidly spread to the parenchyma. They metastasize readily, recur promptly after nephrectomy, and are practically always fatal.

REFERENCES CITED

1. Broders, A. C.: Squamous Cell Epithelioma of the Lip: A Study of 537 Cases, Jour. Am. Med. Assn. 74:656-64, 1920.
2. Martzloff, Karl H.: Carcinoma of the Cervix Uteri, Bull. Johns Hopkins Hospital, May, 1923, xxiv, 141-85.
3. Judd, E. S., Bumpus, H. C., and Scholl, A. J.: Prognosis in Cases of Carcinoma of the Prostate Discov-

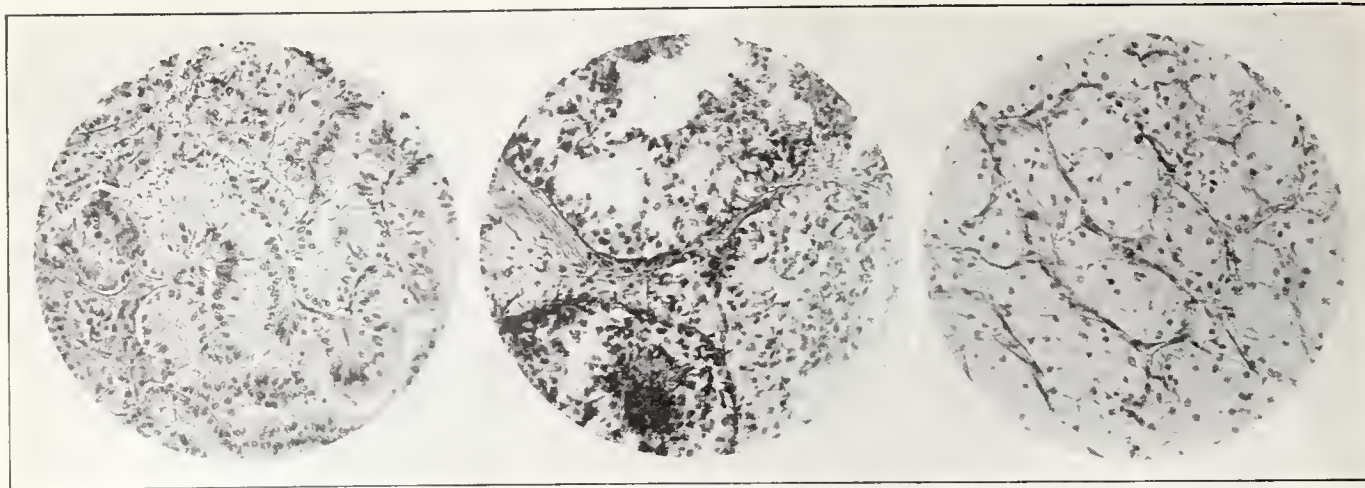


Fig. 7—Papillary adenocarcinoma with granular cells. (X 150.)

Fig. 8—Malignant cystadenoma of the kidney. (X 60.)

Fig. 9—Alveolar adenocarcinoma of the kidney. (X 100.)

ered at Operation, Surg. Clinics of No. Am., 1920, 1279-90.

4. Scholl, A. J.: Histology and Mortality in Cases of Tumor of the Bladder, Surg., Gynec., and Obst., February, 1922, 189-98.
5. Ewing, James: Neoplastic Diseases, Saunders, 1922, 1-1031.
6. Foulds, G. S., Scholl, A. J., and Braasch, W. F.: A Study of Histology and Mortality in Renal Tumors, Surg. Clinics of No. Am., April, 1924, 407-24.

DISCUSSION

C. W. BONYNGE, M. D. (2007 Wilshire Boulevard, Los Angeles)—Any effort toward the differentiation of the comparative malignancy of neoplasms is of unquestionable value. The knowledge at hand on this subject has been materially enhanced by the data presented in this paper. However, at the present time, even with the most careful cell differentiation, I question the ability to give a prognosis with mathematical accuracy. We are too dependent upon the still unknown subject, the etiology of malignancy. After hearing Doctor Warthin speak on "The Incidence of Cancer" one cannot help but feel that possibly the individual resistance has much to do with the conduct of a neoplasm even after it has become established in the body.

We have a perfect right to say the more embryonic or atypical a cancer cell appears, the more malignant it is. But up to now we have no means of explaining how or why some individuals resist metastasis, while others with the same type of tumor succumb rapidly.

Doctor Scholl's description and classification of the malignancies presented are simple and very graphic, and form a valuable addition to our present texts.

THOMAS E. GIBSON, M. D. (742 Flood Building, San Francisco)—Doctor Scholl deserves commendation for presenting a subject which is not spectacular but is nevertheless new and extremely fundamental in its significance. A knowledge of applied pathology is a basic constituent of clinical judgment, and no degree of mere technical skill will excuse a surgeon's lack of clinical judgment.

Alexis Carrel has said that carcinomas belonging to the same histological type will grow at very different rates in people of identical age. Doctor Scholl, on the contrary, has shown very convincingly that within certain limits there is a very definite histologic index of prognosis for cancer. This is true not only for the various types of carcinoma occurring in a given organ, but, as Broders has shown for epithelioma of the lip, a single type of carcinoma can be graded with respect to prognosis.

My own experience bears out Scholl's statistics to the effect that scirrhous carcinoma is more malignant than adenocarcinoma of the prostate. As an example, I might mention two patients on whom I operated perineally about a year ago. Both were apparently fairly early cancers. One proved to be a scirrhous, the other an adenocarcinoma. Three months after operation the scirrhous cancer returned

with almost complete retention and evidence of rapid recurrence. A year after operation the adenocarcinoma patient was still free from urinary symptoms of any sort and never felt better in his life.

With respect to bladder tumors, I am more and more impressed with the futility of the term "benign papilloma." For practical purposes the term should be discarded, as should also the preliminary removal of tissue from the bladder with forceps or snare to determine whether a papilloma is benign or malignant by histological examination. Experience has shown that the pathologist's report of "benign papilloma" is worthless unless it is based on careful study of every cell in the tumor by serial section. This is impractical, and it makes no difference anyhow because the treatment is the same for both.

With respect to solid carcinomas of the bladder, Scholl has stressed the malignancy of the squamous cell type, which resembles the cornifying epitheliomata of cutaneous surfaces. This type is rather uncommon. In 1921 I was able in association with Frank Hinman to collect ninety cases of the condition, and they exemplified very strikingly the theory of anaplasia as an index of prognosis. They deviate markedly from the normal type of bladder epithelium, and are therefore of relatively high malignancy.

I was amazed at the statistics School reports for hypernephroma—54 per cent alive and well after six years. I have not seen a very large number, but those of whom I have knowledge are all dead.

It is perhaps fitting in connection with Scholl's very worthwhile paper to mention McCarty's rather revolutionary ideas on tissue diagnosis. He emphasizes the importance of studying the living cell. It seems possible, by taking tissue immediately after it is removed at operation, making frozen sections, staining momentarily with polychrome methylene blue, and studying the individual cells, to make earlier and more accurate diagnoses than by the old paraffin section method. We might go a step further and produce true intravital staining of cancer cells by intravenous injection of the patient before operation. This might yield fruitful information concerning cancer not alone of value in diagnosis. Trypan-blue is said to be harmless and to produce beautiful intravital staining, but leaves the subject discolored for some months.

A. M. MOODY, M. D. (909 Hyde Street, San Francisco)—Doctor Scholl has presented a very big subject clearly and concisely. In the discussion of a paper such as this there are many points I should like to discuss about the various types of bladder, prostate and kidney tumors which I have studied, but shall limit my remarks to those points on which our opinions differ somewhat.

The following facts about a tumor are of importance for the surgeon to obtain from the pathologist:

1. Is the growth malignant?
2. What are its cellular characteristics?
3. Does it contain evidences of slow or rapid growth?
4. Has the tumor been completely removed?

If the pathologist can accurately determine the above points he has accomplished much. The question of the probable duration of life as attempted by the microscopical examination of tumors has never appealed to me as anything more than a hazardous guess. There are so many clinical factors concerned in any case of malignancy that I feel certain prognosis cannot be accurately determined by the histological examination of tumors *per se*.

Mortality statistics are of great importance when properly controlled, but statistics in one clinic do not apply to all clinics. They are at best only a crude estimate of what we are all striving to accomplish, i. e., the prolongation of life.

Scholl's paper rightly brings out the point that tumors which are recognized early in development are the ones which offer the best chance for their complete removal. This, to me, is still the most important point when considering the treatment of malignancies.

A. A. KUTZMANN, M.D. (1052 West Sixth Street, Los Angeles)—Scholl has gathered together some interesting urological facts calculated to aid in prognosis. Clinicians have been in the past wont to consider the field of pathology as something apart from clinical medicine. It is of importance that the urological surgeon know and recognize histopathological features and not rely entirely on the pathologist. By such knowledge he will develop judgment in addition to just technical skill and so be able in most cases to foretell the course of events. The problem of prognosis is a great one and of practically as much importance as that of therapeutics. Scholl has shown with what probability the urologist can prognosticate within certain limits. It will, of course, never approach mathematical accuracy, but by striving to achieve such a goal, we will pass from the stage of empiricism to that of fact, that is, within certain relative limits, since medicine is not an exact science and the human organism with its assorted ailments may vary so.

In discussing the relation of histology to prognosis, Scholl is opening a rather new field. No doubt many surgeons of great experience have gathered together such facts in their minds, but very few if any have recorded them. The figures as stated in the cases of prostatic and bladder tumors approximate the usual experience and outcome in those patients. The figures quoted under malignant kidney tumors I fear are far too optimistic. Everywhere in the literature and from our experience we have been impressed with the great mortality. In conjunction with Frank Hinman a survey of the field was made several years ago, when an ultimate mortality of over 90 per cent was found.

In conclusion, I wish to commend Scholl on his able dissertation of so dry but yet important a subject. It would be wise that everyone study and familiarize himself with the fundamentals of this paper, since in dealing with malignancies of the genitourinary tract some of the most fatal malignant tumors are encountered.

A. ELMER BELT, M.D. (Pacific Mutual Building, Los Angeles)—Here we have the clinician pencil and pad in hand invading the pathological laboratory in an effort to calculate the future of his patient. The severest test of any science is the reduction of its facts to a mathematical equation. The trial before us is: microscopic physical appearance equals what, in length of years? Scholl's answer is a striking confirmation of Broders' law of anaplasia as an index of prognosis: great deviation from the normal cell structure in malignant growth equals short duration of life for the individual.

The paper is far too brief for the considerable importance of its theme. The figures given permit no opportunity of critical analysis. To be criticized properly it must be read together with its brief bibliography which is largely from the author's pen, where are given in greater detail statistics which here are only scanned. It is then seen that a vast storehouse of material has been drawn upon, the accumulations of a clinic where uniform and marvelous applied technical skill is the rule. Uniform and vast as it is, one hesitates to acclaim too readily from its data the establishment of a biological law.

Broders' effort has pointed the way. He presents a theme which may call every clinician into the pathological

laboratory, as Scholl has been called, asking not only "Is it cancer?" but "How long will my patient live?"

DOCTOR SCHOLL (closing)—The results following surgery for renal tumors are good, but they are not markedly different from those obtained at the present time in most big urologic centers. The majority of case reports of renal tumors, and especially of several recently published reviews, are of operations performed before urologic diagnosis had reached its present state of diagnosis. Practically all recent reports of results obtained in nephrectomy for tumor performed in European clinics are of cases done many years ago. Quite a contrast in accuracy of diagnosis is offered between the status of 1895, when A. O. J. Kelly reported a large series of renal tumors, 72 per cent of which came to autopsy undiagnosed, and that of our present period, when ureteral catheterization and the pyelogram almost invariably permits correct diagnoses of tumors even in early stages when the lesions are small and operable. Stevens, who reviewed 348 reported cases of renal tumor as recently as 1923, stated that 85 per cent of hypernephromas had the three classical diagnostic points, hematuria, pain, and palpable tumor; pain and tumor suggest well-advanced cancer. Kretschmer found that this triad of symptoms occurred in one-third of his own, comparatively recently, operated cases.

I appreciate the interest and frankness of the men who have discussed my paper, and thank them kindly.

VOLVULUS OF ENTIRE SMALL INTESTINE WITH TORSION OF MESENTERY

CASE REPORT

By THEODORE C. LAWSON *

A white man of 40 years, machinist, entered the hospital unconscious, and died one and one-half hours later without regaining consciousness.

Five days prior to admission the patient complained of not feeling well, but ate a hearty dinner. A few hours later he vomited, which act was repeated at intervals during the evening and night, accompanied by a choking sensation, but with no pain. He returned to work the next morning, but the vomiting continued, and was of a yellow fluid nature, not foul. Two days after the onset he had two convulsions, each lasting about an hour. The day before admission he became delirious, and the vomiting, which had become more severe and persistent, began to have a fecal odor. The same day he was given a laxative, and one and one-half hours later he passed some pink-stained fluid.

P. H. Four years ago, following an attack of influenza, the patient began to have attacks of gas pains over the epigastric region which were always relieved by soda. He was frequently nauseated and vomited after meals, but he never complained of pain or tenderness of the abdomen.

P. E. On admission for his last illness the patient was in coma with twitching of extremities and facial muscles. The lungs were negative except for a few crepitant rales at both bases posteriorly. The heart rate was rapid, with heart sounds of poor quality, valvular in type. The abdomen showed slight distention below the umbilicus with slight rigidity of the recti muscles, but no masses were felt. Temperature, 100.6; pulse, 105; respiration, 28.

Autopsy Findings—In addition to other conditions in which we are not interested, the findings were as follows: Stomach dilated to twice its normal size, and contained

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undigested food with thin yellow material of fecal odor. The small intestine was involved in a massive volvulus with torsion of the mesentery, counterclockwise, for two complete turns, or 720 degrees. The gut involved included all that from one and one-half inches below the duodenal-jejunal juncture to within two inches of the ileocecal valve. The dorsal attachment of the mesentery to the small intestine was only one inch in length, just enough to contain the superior mesenteric vessels. The small intestine was dilated, brownish purple in color, with evidence of beginning gangrene. The mesenteric and colic veins were markedly dilated. The large intestine at the splenic flexure was found doubled up on itself and bound down with adhesions. The descending colon was collapsed and descended from the splenic flexure for about eight inches, when it became bound with adhesions, and curved upward and medially for five inches and then descended down just to the left of the vertebral column to the rectum.

In 1903 George T. Vaughan gathered from literature a total of sixty cases of volvulus of the small intestine, in twenty of which the volvulus was of the entire small intestine with torsion of the whole mesentery. To these he added the record of his patient who was operated on with complete recovery. Since then the following have been reported:

1914. Weible—personal case, operation, recovery. Summary of sixty-six cases of volvulus of the small intestine.

1917. Vaughan—personal case. No operation, death.

1917. Garrow—fatal case.

1920. Wise—personal case, operation, recovery.

1920. Sabawala—personal case, operation, recovery.

1920. Billington—fatal case.

1922. Heymann—fatal case.

1923. Tees—four cases of volvulus of small intestine. Two involved most of small intestine, both were operated on and died.

1924. Wheeler—personal case, operation, recovery.

The present case is the seventy-seventh to be reported. Out of this total there have been twenty-five recoveries, or 33.3 per cent, all of whom were operated on, showing excellent operative results and comparing very favorably with the very high percentage of fatalities found usually in other forms of intestinal obstruction. Several authors refer to having seen similar lesions, both in the operating room and at postmortem which were not otherwise reported, so the total number of cases should be much larger.

Incidence—The incidence of volvulus is indicated by the reports of the Massachusetts General Hospital where, during twenty years, there were tabulated 239 intestinal obstructions, 25 of volvulus. Ten were volvulus of the small intestine which in one included the whole small intestine with torsion of the entire mesentery. In the London Hospital during thirteen years there were 669 diagnoses of intestinal obstruction of which 27, or 4 per cent, were due to volvulus, and 7 involved the small intestine. Leichtenstern states that of 1500 intestinal obstructions, 33 (2 per cent +) had volvulus.

Age—Volvulus is definitely associated with adult life, the average age being 45 years. Tissier and Mercier reported a congenital case and several patients have been over 70 years.

Sex—One author reported 51 instances in men and 13 in women; another 32 in men and 27 in women.

Location—More than one-half of the cases of volvulus, according to Vaughan, are at the sigmoid flexure, fewer at the cecum, and fewest in the small intestine, where only a small proportion involve the entire small intestine. By far the greater number of patients with volvulus also have obstruction, in part at least, of the large intestine, principally due to the nonrotation of the mesentery and combined large and small intestine during embryonic life. Of the cases reported by Gibson 73 involved the colon, 58 the sigmoid, 15 other parts of the colon and small intestine.

Degree of Torsion—The degree of torsion in most instances has been 180 degrees. In two patients it was 90 degrees; in three including our present one it was 720 degrees. Garrow's patient had a twist three and one-half times or one of 1260 degrees. In most of the patients the direction of the twist was clockwise. Vaughan found it clockwise in twenty-four, and counterclockwise in two.

Etiology—The great majority of authors state that the commonest predisposing cause of volvulus is the presence of structural changes, mostly bands or adhesions, either of congenital origin or those formed by a previous peritonitis. Van Hook and Kanavel in Keen's Surgery, Allbutt and Rolleston and others of high authority state that volvulus has been reported due to old scar formation and chronic mesenteritis (Philipcowicz and Küttner), former operations with bands and adhesions (Whiting, Riedel, and Hübner), mesenteric cysts, habitual constipation and chronic intestinal stasis with traction on the mesentery (Bosquette and Delore). Most patients with volvulus have been known to have long mesenteries, i. e., with a greater distance between the posterior abdominal wall to the gut, permitting a greater range of motion of the mesentery and intestine during peristalsis. Congenital maldevelopment of the mesenteric pedicle in the shortening of its vertical attachment to the posterior abdominal wall was frequently present. In our patient the base of the mesentery was about one inch long, just enough to permit the passage of the superior mesenteric vessels. Also a final predisposing cause must be stated as a condition due to the nonrotation of the common mesentery and large and small intestine during embryological development, a rotation which usually takes place during the fourth fetal month. At this stage of development both the large and small intestine have a common mesentery and are both involved in this rotation, and as the colon is in the most dependent portion of the alimentary canal, it can be readily seen how the large intestine is most commonly involved in volvulus.

A new factor as to exciting cause of volvulus has been brought out by Tees, who shows that it is often due to the disordered peristaltic action of the intestine. A high percentage of volvulus in patients with intestinal obstruction is reported in the Slavs and Scandinavians. In 153 cases of obstruction collected by Faltin (Helsingfors) 78 or 51 per cent were due to volvulus, of which 22 per cent occurred

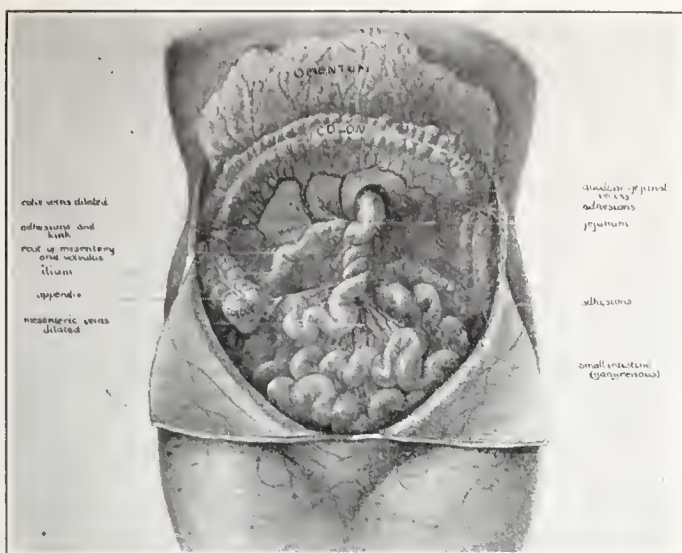


Fig. 1—Volvulus of the whole small intestine with torsion of the entire mesentery showing adhesions with anomaly of the large intestine.

in the small intestine. (Compare this with the report from the London Hospital.) These races are predominately vegetarian, and several authorities conclude that such vegetarian or bulky diets result in intestinal atony or chronic distention, thus largely contributing to a twisting of the bowel. It has been further pointed out that the proximal portion of the bowel distended by active purgation acting against a distal paralytic and collapsed part will largely contribute to the formation of a volvulus.

Symptoms—Prolonged constipation is the rule with attacks of abdominal discomfort, or pain with vomiting. Our patient, it has been seen, would vomit at the least provocation, and had a history of gastric distress for four years. This vomitus, however, is seldom fecal, as the bowel cannot empty itself in either direction when the volvulus involves the entire small intestine. Usually the vomitus is bilious or dark colored, blood is seldom vomited or passed in the stool, even though free blood or sanguinous fluid may be present in the peritoneal cavity and in the intestine. Abdominal pain is variable. Our patient had no pain. Many patients are often seized suddenly by generalized abdominal severe pain, usually centering about the umbilicus. It is plausible to assert that pain is sudden, severe, accompanied by shock where the twisting is sudden, causing an acute obstruction, and may be absent or a minor symptom in chronic obstruction. The abdomen is usually rigid, distended, and tympanitic. A rectal or vaginal examination may at times show a boggy mass in the rectovesical or the rectovaginal pouch. Temperature may be normal, above or below normal. Pulse is usually normal until collapse occurs.

Diagnosis—In the majority of patients it is impossible to make a more definite diagnosis than that of intestinal obstruction, and that is enough to indicate immediate laparotomy. The most unfortunate mistakes are liable to be made when a volvulus is associated with a visible hernia. Usually an actual diagnosis other than obstruction is impossible.

Prognosis—Without operative relief the mortality is 100 per cent. Of the total of the 77 cases recorded 57 were operated on, with recovery of 25,

or 43.8 per cent. All the successful operations were performed within less than forty-eight hours after the patients were first seen. Some reported operations were from ten hours to nine days after the symptoms began. The cause of death in these instances is due to injury to the sympathetic plexus produced by strangulation of the small intestine and rapid absorption of toxins.

Treatment—Operation as soon as diagnosis is made is the only hopeful method of treatment. That a difficulty in diagnosis can be met even after the abdomen is opened is borne out by the fact that four operators—Debie, Kirmisson, Delbet, and Delore—were unable to find the real cause of the obstruction. The detorsion of the volvulus is all that has usually been done, which seems to have proved all that was necessary, although Philipcowicz advocates a suturing of a portion of the mesentery to the posterior abdominal wall.

REFERENCES CITED

- Billington, C. M.: *Brit. Med. J.*, 1920, 2: 549.
 Bleecher: *Deutsche Zentralbl. f. Chir.* Leipsic, 98: 521.
 Bosquette: *Dauphine Med.* Grenoble, 1912, 36: 217.
 Bull, P.: *Bull. et. Mem. Soc. de Chir. de Par.*, 1907, N. S., 33: 4.
 Burgess, Arthur: *Lancet*, Lond., 2: 1690.
 Clement, Pierre: *Bull. Soc. Anat. de Par.*, 1905, 80: 737.
 Danielson, Wilhelm: *Beitr. z. Klin. Chir.*, 1906, 48: 100.
 Debie, E. J.: *Archiv. de Med. et Pharm. Militaire*, Paris, 1900, 36: 324.
 Fantino, G.: *Il Morgagni*, Milano, 1911, 48: 743.
 Garrow, R. P.: *J. Roy. Med. Corps.* Dec., 1917.
 Heymann, E.: *Deutsch. Med. Wochschr.*, 1922, 48: 725.
 Homans, J.: *Bost. Med. and Surg. J.*, 1898, 139: 315.
 Hutchinson, Jonathan: *Clin. J. London*, 1907, 30: 113.
 Küttner: *Munchen. Med. Wochschr.*, 1905, 3: 482.
 Lawson, C. B.: *J. Royal Army Med. Corps.*, Lond., 1906, 7: 593.
 Philipcowicz, W.: *Arch. f. Klin. Chir.*, 1905, 76: 934; *Arch. f. Klin. Chir.*, 1912, 97: 884.
 Sabawala, B. P.: *Brit. Med. J.*, 1920, 1: 221.
 Shepherd, F. J.: *Montreal Med. J.*, 1899, 18: 46.
 Vaughan, G. T.: *Am. Jour. Obst.*, 1907, 56: 187; *Virginia M. Semi-month.*, May, 1917, 22: 89.
 Weible: *Surg. Gyn and Obs.*, 1914, 19: 644.
 Weksner, B.: *Zentralbl. f. Chir.*, 1924, 51: 2129.
 Williams, C. L.: *Indian Med. Gaz. Calcutta*, 1901, 36: 457.
 Wise, W. D.: *Journ. Amer. Med. Assoc.*, 1920, 7: 4 1165.
 Whiting, O. D.: *J. Med. Sci.*, 1903, 15: 799.

Vice-President Lee K. Frankel, Metropolitan Life (Health and Empire, June, 1926), relates that life insurance companies have "touched only slightly" the problem of syphilis. They have not held back because of lack of interest, but because syphilis (and other venereal diseases) is "so personal and intimate" that there are "peculiar difficulties in working out an effective plan."

Statistics gathered by the insurance companies appear to indicate a minimal "extra mortality" of at least 50 per cent among syphilitics who had been treated for two years, and who were free from symptoms for another year.

After deploring the incompleteness of morbidity and mortality statistics, realized by everyone as so inadequate as to be practically valueless, Frankel believes that because of intimate relation between carrier and policyholder "it is questionable whether the insurance company may intrude itself into the privacy of the policyholder's home to carry on a campaign of social hygiene." So the insurance companies "have left this type of work to public health agencies."

"However," says the author, "the day may not be far distant when insurance companies may undertake a comprehensive educational campaign."

OBSERVATIONS ON USE OF LIVER
EXTRACT

By LOUIS E. MAHONEY *

WITH the great prolongation of life which has occurred in the last twenty-five years, and which is largely due to better sanitation and the advance of scientific medicine, there are necessarily more people living to greater ages and more suffering from high blood pressure. The search for some method for lowering blood pressure has been very thorough and very persistent, but until recently quite fruitless. About two years ago a group of Canadian investigators—MacDonald, James, Laugton, and Macallum—and a group at the University of Kansas, Major and Stolland have done considerable experimenting with extracts of liver tissue. Their observations have been scientifically controlled, and were not published to the profession until both these independent groups of investigators felt they had elucidated some new medical truths.

It has long been known that extracts of almost any tissue injected into the human body or that of a laboratory animal will produce a fall in blood pressure. However, extract of kidney and spleen usually produces a rise. The decline produced by tissue extracts is probably due to histamine, choline, peptones or proteoses. The investigators have prepared their extract in such a way that they feel quite certain all of these above-listed chemical compounds have been completely eliminated from the final product. Major of Kansas City, in a series of experiments performed on dogs has secured an entirely different set of graphic tracings with the liver extract than were produced by histamine. It is quite well authenticated that in the metabolism of protein foods certain substances are produced which have vasoconstrictor, and blood pressure raising qualities. Among these may be listed tyramine and methyl guanidine. These are end products formed when nucleoproteins are broken down. Tyramine, by the way, is the active principle of ergot. It is the hypothesis of Major that methyl guanidine collects in the blood and tissues upon failure of the kidneys to excrete it, and this substance, with possibly other blood pressure raising compounds, are the cause of the clinical condition known as essential hypertension. Graphic observation and animal experimentation shows that methyl guanidine injected into a cat or dog produces a marked rise in blood pressure and that liver extract will very quickly reduce the pressure to normal. This observation has been the tentative basis for methods of standardizing hepatic extract. The unit has been arbitrarily fixed as the amount of liver extract necessary to counteract the

rise in blood pressure produced by the injection of 1/10 of a milligram of methyl guanidine into the vein of a cat or dog weighing about 2.5 kilos.

Both the Canadian investigators and the Kansas City school feel that hepatic extract is of decided benefit when confined to essential hypertension. By essential hypertension I mean persistently elevated blood pressure in individuals in fairly good health with no eye symptoms, no discoverable foci of infection, no arteriosclerosis, and no abnormal urinary findings. It is not felt that the extract is of benefit when the arteries are sclerotic or when there is demonstrable kidney change. It is necessarily difficult to evaluate this method because there are so many things that will temporarily reduce blood pressure, and many new treatments have been proposed in the past and later rejected as worthless.

The method of administration of liver extract is as follows: The patient reports for observation every day or every other day. Blood pressure readings are taken before the dose of 1 cc. is given and thirty minutes and one hour afterward. Patients report every day or every other day for several weeks. Five grains of the dried extract is given by mouth, two or three times daily, as it is believed that there are some effects secured by oral administration. In small series of some half-dozen patients which I feel to be definitely essential hypertension, favorable results have been obtained. Thirty minutes after the hypodermic injection of doses varying from 1/2 cc. to 2 cc. of the extract the systolic pressure has almost uniformly dropped from 6 to 30 milligrams of mercury. In some instances diastolic pressure dropped and at other times it became higher. The patients were all individuals at the fifth or sixth decade of life and in reasonably good condition, who had had their hypertension for a number of years, but were suffering from various subjective symptoms, such as headache, sleeplessness, ringing in the ears, weakness, etc. Every patient in this small series expressed themselves as feeling better. The initial systolic reading varied from 240 to in the neighborhood of 170, and after treatment for several weeks the average reading varied from 180 to 145. In instances where the pressure has still remained high the patients have noted relief from distress and subjective symptoms, and pronounce themselves benefited. The initial doses should be very closely supervised, as a sharp fall may be produced and collapse supervene. Adrenalin should always be near at hand for emergencies. The ordinary restrictions with regard to exercise, diet and hygienic measures are, of course, observed. After the injection the pressure remains lowered twelve to twenty-four hours, and then slowly climbs back almost but not quite so high as previously.

While it is too early to form any definite conclusions from such a small series of cases among the especially favorable individuals, nevertheless one cannot help but obtain clinical impressions. My feeling is that liver extract properly used in essential hypertension will almost always temporarily, and frequently permanently reduce the pressure, and if it does not reduce the pressure it will at least improve the subjective symptoms and give the patient the feeling of well-being.

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TRICUSPID DISEASE

By WILLIAM J. KERR AND L. F. MORRISON *

(From the Department of Medicine, University of California Medical School, San Francisco.)

DISCUSSION by James F. Churchill, San Diego; Eugene S. Kilgore, San Francisco; Donald J. Frick, Los Angeles; Franklin R. Nuzum, Santa Barbara.

ORGANIC disease of the tricuspid valve is seldom recognized clinically. Relative insufficiency of the tricuspid valve, however, is extremely common in cases presenting passive congestion, associated with dilatation of the right heart. The presence of an enlarged heart, cyanosis, pulsating liver, distended and pulsating peripheral veins, ascites and general anasarca in patients complaining of dyspnea point to right heart failure. In such cases a soft, blowing systolic murmur, which often has a musical quality, is frequently heard over the ensiform cartilage or at the epigastrium. This murmur varies from day to day and may entirely disappear as the function of the right heart is restored by treatment.

Organic lesions of the tricuspid valve are most

often observed in rheumatic heart disease. The condition is, with few exceptions, first suspected at the postmortem examination, and the tricuspid valve is rarely involved alone. In a series of 97 cases of rheumatic endocarditis studied by Coombs, the mitral valve was involved in all instances, the aortic in 57, the tricuspid in 35, and the pulmonary valve in but two cases. Other authors have reported the frequent occurrence of tricuspid endocarditis in rheumatic heart disease at the postmortem table.

Acute endocarditis of the tricuspid valve is not infrequently observed in cases of septicemia. In such instances the vegetations are more of the thrombotic type. They may be suspected in puerperal sepsis or in septicemia following infections in the pelvis where embolism occurs in the lungs.

Tricuspid endocarditis is commonly associated with congenital heart lesions involving the pulmonary valve or the septum of the heart.

In the rheumatic group tricuspid endocarditis is three or four times more common in women than in men. The age incidence is practically the same as for mitral stenosis, being more often noted between the ages of twenty and forty.

The tricuspid valve is normally a variable structure. The size and arrangement of its papillary muscles and the thinness of the right ventricular wall predispose to insufficiency of this valve. Excitement and exertion, even in the normal individual, may give a temporary stretching of the tricuspid ring, sufficient to permit regurgitation through the valve orifice. When endocarditis occurs the valve leaflets become thickened, the cordae tendinae shorten, and the orifice may not close completely in systole. The triangular shape of the valve prevents the narrowing of the orifice as is seen so often in disease of the mitral valve. Consequently, tricuspid stenosis, of marked degree, is relatively rare.

When the tricuspid valve is insufficient, the right auricle becomes dilated and hypertrophied because of increased intra-auricular pressure during systole of the heart. As the process continues, the vena cava shares in the dilatation and the liver becomes distended. The liver may show systolic pulsations. The peripheral veins are engorged and frequently pulsate in the neck, arms, forehead and in the retina. These pulsations are systolic in time and are known as stasis waves, being propagated along the distended veins. There is no passive congestion of the lungs unless there is also rather marked mitral disease. Ascites and edema are commonly noted.

Tricuspid stenosis interferes with the flow of blood from the right auricle to ventricle. When the narrowing of the valve is marked, the right auricle is greatly enlarged and stasis in the vena cava is suggested by cyanosis, distended veins, enlargement of the liver, ascites and edema. The right auricle, and inferior vena cava in the chest, may become a large dilated sac. The auricles, in such cases, are usually fibrillating. The pulsations in the liver and in the peripheral veins may be systolic in time or, in tricuspid stenosis with a regular rhythm, the pulsations in the liver may show three waves similar to the normal jugular pulse and the "a" wave in the jugular pulse may be prominent.

The frequent association of lesions of other valves

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with tricuspid endocarditis tends to confuse the symptomatology. Only general rules, therefore, can be formulated. Marked cyanosis and dyspnea on exertion, weakness, cold hands and feet, tenderness in the upper abdomen, and cerebral disturbances are common complaints. The physical examination shows variable signs of chronic passive congestion; the liver is generally enlarged and pulsating; the veins are engorged and frequently pulsating. The spleen may be enlarged but is seldom noted clinically. Jaundice may be observed and, when present, is a grave sign. The urine is scanty and may show albumin, blood cells and casts.

Inspection frequently reveals pulsations in the fourth and fifth interspaces to the right of the sternum. Epigastric pulsations, if present, may be due to an enlarged right ventricle or to a pulsating liver. The jugular veins are distended and fill from below. Pressure over the liver causes greater distention of the jugular veins.

Palpation rarely shows a systolic thrill over the lower sternum or in the epigastrium in tricuspid insufficiency. In tricuspid stenosis the thrill may be of the coarse type, occurring very late in diastole. The thrills do not differ greatly from those noted in mitral stenosis and insufficiency, although the location, nearer to the epigastrium or to the right of the sternum, should suggest tricuspid disease.

The heart is usually enlarged to the right, but the size and shape of the heart depends upon the number of valves involved and the degree of their involvement. Many of the hearts are triangular in shape with a broad base resting on the diaphragm. In those cases with involvement of the tricuspid valve, alone, the right auricle may be greatly enlarged and the right ventricle may be normal or reduced in size.

The rhythm is regular early in tricuspid disease, but as the myocardium becomes more involved, auricular fibrillation or flutter supervene.

On auscultation the heart sounds suggest the lesions of the other valves involved. With mitral stenosis the pulmonic second sound is accentuated and the first sound at the apex is loud and snapping. In aortic insufficiency the aortic second is diminished or replaced by a blowing diastolic murmur. In cases of tricuspid insufficiency a systolic murmur is often heard over the lower end of the sternum, just to the right of the sternum, in the fourth interspace or in the epigastrium. As stenosis develops, a mid-diastolic or late diastolic crescendo murmur, similar to the so-called presystolic murmur of mitral stenosis, may be heard. With the onset of auricular fibrillation, the presystolic murmur may disappear as in mitral stenosis. The similarity of these murmurs to those of mitral stenosis and insufficiency often makes the diagnosis difficult. If the condition is suspected and the murmurs carefully studied, it will be noted that the murmurs due to the mitral lesion are most marked at the apex and tend to diminish as lower sternum is reached. It is in this region that the murmurs of tricuspid disease appear. The difference in pitch and duration in the cardiac cycle may help in diagnosis. The systolic and diastolic murmurs of disease of the aortic valve should also be differen-

tiated from murmurs arising from lesions of the tricuspid valve.

The diastolic murmur of aortic insufficiency may, at times, be best heard in the third and fourth interspaces, just to the left of the sternum, and the presystolic or Austin Flint murmur of aortic insufficiency may make detection of the tricuspid stenosis murmurs difficult. In aortic valve disease, however, we seldom see the marked signs of embarrassment of the right heart such as are seen with tricuspid disease.

Polygraphic tracings are of value in demonstrating the positive venous pulse in the jugular veins and the systolic pulsations in the liver in tricuspid insufficiency. When tricuspid stenosis appears, the "a" wave or auricular wave in the jugular tracing is prominent, and there may be a presystolic pulsation of the liver. With the onset of auricular fibrillation, the "a" waves disappear from the jugular tracing and the presystolic pulsations are absent in the liver tracing. The rhythm becomes absolutely irregular.

The electrocardiogram is variable, but in many instances shows right ventricular preponderance. Lesions of other valves, myocardium and pericardium, contribute to the variations from the normal. Irregularities and conduction defects are commonly observed.

The differential diagnosis between organic and relative tricuspid insufficiency is made on a careful analysis of the history and physical findings. A history of rheumatic heart disease, congenital heart disease, or septicemia may suggest tricuspid endocarditis. Relative tricuspid insufficiency is commonly associated with chronic mitral endocarditis, pulmonary disease, anemia, degenerative disease of the coronaries and myocardium and in many other conditions. The variability of the physical signs and the prompt response to treatment are against a diagnosis of organic disease of the tricuspid valve. There may, however, be a slight degree of organic disease of the valve and a marked degree of relative insufficiency of the valve when the right heart fails.

Patients with organic tricuspid disease present great disability, frequently over many years. Their field of cardiac response is greatly diminished, dyspnea appears on slight or moderate exertion, and cyanosis is an outstanding feature. A constantly enlarged liver and ascites are of diagnostic importance.

The prognosis depends on the degree of the involvement of the tricuspid valve, the condition of other valves, and the extent of the myocardial damage. The activity of such individuals is greatly limited and the sufferers, toward the end, are bedridden most of the time. Death may occur from many causes associated with disease of the myocardium, conduction system, or pulmonary embolism.

The treatment is the same as for chronic endocarditis and myocardial failure. A sedentary life is voluntarily assumed by the patient but excessive exertion should be prohibited. Care should be taken to prevent infections and foci of infection should be removed. Pregnancy is contraindicated.

The foregoing statements are based on ten years' experience in cardiovascular disease. During this time 95 cases of tricuspid insufficiency were diag-

nosed during life. In twelve cases out of 25 coming to postmortem examination, the tricuspid valve was found to be the seat of endocarditis, but in only three of these twelve cases was the condition recognized during life. In other cases where tricuspid endocarditis has been suspected, there has been no opportunity to examine the heart after death. In only a few cases, reported in the literature, has the diagnosis been recognized during life.

DISCUSSION

JAMES F. CHURCHILL, M. D. (704 Electric Building, San Diego)—Tricuspid disease is of clinical importance because of its bearing on prognosis and the added restrictions which its presence imposes upon the activities of patients with heart disease.

The persistence of relative tricuspid insufficiency in mitral disease is evidence of much graver myocardial degeneration than in those patients in whom the insufficiency disappears under appropriate care. I plan for a very different future for the patients of the former class, knowing that their reserve will be low and their activities therefore correspondingly restricted. If the lesion is recognized and the patient managed accordingly, it may be possible to prevent serious breaks in compensation for an indefinite time.

As regards the differential diagnosis between organic and relative tricuspid insufficiency I believe it is often possible to make a differentiation from observation of the clinical course. A patient with mitral disease and a tricuspid insufficiency probably has an organic tricuspid if the signs of pulmonary stasis clear up satisfactorily while the liver stasis and edema of the lower extremities persist beyond the time when one would reasonably expect them to disappear. In other words, left heart compensation occurs, without corresponding efficiency of the right heart. I am aware that interpretation of this point is rather indefinite and will vary with the observer, but it is one which has been borne out many times by my clinical experience.

EUGENE S. KILGORE, M. D. (490 Post Street, San Francisco)—The authors and Churchill have expressed well the difficulties of interpreting physical signs, especially murmurs in the diagnosis of tricuspid disease. At times it may be quite impossible to decide between organic tricuspid insufficiency and incompetence from stretching in the presence of severe crippling of the left heart.

Fortunately, for the practical purpose of treatment, if we take note of the general state of the circulation, we experience little handicap by reason of doubt about which valves are deformed. Prognosis, however, is more influenced by our conception of the condition of the tricuspid valve. When its function is impaired the blood current receives no compensating propulsive assistance from farther back in the circuit until stasis has reached clear through the hepatic and general circulation. This is in contrast with mitral and aortic lesions. In the former, the right ventricle is able to help through the comparatively short pulmonary circuit; and in the latter the left ventricle takes up the extra load, and if it fails to do so completely it receives further support from the right heart.

Theoretically and as a matter of experience, therefore, a given amount of valve damage is best tolerated on the aortic leaflets and worst on the tricuspid. In cases of supposed mitral disease that "slip" unaccountably, a complicating tricuspid disease should therefore be suspected. Cases of aortic, mitral and tricuspid disease pursue so typical a downward course as almost to warrant considering them a separate clinical entity.

DONALD J. FRICK, M. D. (1136 West Sixth Street, Los Angeles)—Dr. Kerr's article is timely as it brings to our minds again the pertinent facts in regard to tricuspid disease.

1. Its rarity as an organic affection and its frequency as a functional insufficiency. The tricuspid is affected in less than 1 per cent of all cases of valvular disease. Slight dilatation of, or back pressure in, the right ventricle will

cause functional tricuspid insufficiency on account of the poor architecture of the valve and its supporting structure.

2. The difficulty in diagnosis of organic lesions, and the ease of diagnosis of functional insufficiency of the tricuspid valve. Inflammation of the tricuspid valve practically never occurs alone, the resultant damage to the other valves making it difficult to segregate the murmurs of tricuspid disease. Functional insufficiency is always suspected and usually proved present when we have venous stasis and an enlarged right heart.

3. The bad prognosis in cases with regular rhythm and tricuspid insufficiency.

4. The fact that the history, symptoms, and physical findings are more valuable in diagnosis than the data gained by instrumental means. The latter is supplementary and may be confirmatory.

5. Personal experience always adds to human knowledge.

FRANKLIN R. NUZUM, M. D. (Cottage Hospital, Santa Barbara, California). The infrequent antemortem diagnosis of organic disease of the tricuspid valve is strikingly borne out by R. C. Cabot in reviewing 1906 instances of cardiovascular disease that came to autopsy. In only 33 of these 1906 instances was tricuspid endocarditis present and then always as a stenosis in combination with stenosis of the mitral, aortic or pulmonary valves. In only one of these 33 instances was tricuspid disease suspected during life. Doctors Kerr and Morrison are to be congratulated in having demonstrated grossly tricuspid endocarditis in 12 of 23 instances that came to postmortem examination.

The infrequency of clinical diagnoses of lesions of the tricuspid valve are due in part to their less frequent occurrence, but in greater part to the fact that they are not thought of. A clinical diagnosis of mitral regurgitation is frequently made when mitral stenosis exists, and stenosis is the more important lesion. Cabot's work demonstrated tricuspid stenosis in each instance in which tricuspid endocarditis was found. This concept seems to disagree with the views expressed by the authors and the first of the discussants. It agrees, however, with the few instances of tricuspid endocarditis in my own experience, each of which at postmortem presented a tricuspid stenosis in combination with stenosis of one or more of the other valves.

A particular aid in proving the presence of a lesion of the tricuspid valve, either insufficiency or stenosis, is the detection of peripheral vein pulsation. Recent publications by Kerr and William Middleton have dealt with this phenomenon and is perhaps the reason for only its mention in the present paper. Peripleural vein pulsation is easily elicited if it is present. With the patient in the recumbent position, the extended arm is first lowered over the side of the bed until the peripleural vessels are well filled. Then the examiner, with his eye on a level with, for example, the median basilic vein, slowly raises the arm. When it is approximately horizontal with the patient's body, the vein will be seen to pulsate synchronously with the heart beat. This means the existence of a tricuspid lesion. Further effort should be made to demonstrate the presence of stenosis since this lesion is of such prognostic importance.

It is, as we understand it, the earnest desire of the trained nurse to rank as a professional worker, and to tread the path side by side with the physician. That being so, she must assume the noblesse oblige of the medical profession, lay her talents at the feet of the world that needs them, and, while properly demanding an adequate compensation worthy of the dignity and value of her services, she must gauge that value, not from a fixed table of figures, but by the ability of the patient to pay, and must not set her ministry above anybody's reach. If nursing is to be an avocation, and not a trades-union, it must abandon its hard-and-fast scale of prices and adopt a schedule which is elastic in each direction, which will enable the nurse to earn a proper and adequate recompense without shutting the door of her ministrations to any that need them.—Editorial, *Medical Standard*.

THE EFFECT OF GASTRIC JUICE ON CARBOHYDRATE DECOMPOSITION BY YEAST

By ROBERT G. BRAMKAMP*
Stanford University, California

JUDGING from the literature, there have been no experiments in vitro to determine in any accurate way what effect the gastric juice has on yeast fermentation. It is stated in many books that gastric juice has a bactericidal action and that it checks fermentation, but that in certain pathological conditions, due to a reduction of the hydrochloric acid, the fermentive processes are increased. The only published work in this line to which reference can be found is that of Gregerson.¹ This investigator found that the bactericidal action was almost entirely due to the hydrochloric acid, and that the effect of the pepsin was insignificant. No disinfectant action was manifested when the juice did not react with congo red paper. The stomach contents giving this reaction from other acids than free hydrochloric did not show disinfectant action. The bactericidal power was determined to be proportional to the content of free hydrochloric acid.

Through the agency of the recent advertising campaigns yeast has become a rather widely used article of the diet, and it seems, therefore, that it would be of theoretical interest and some practical value to determine to what extent the hydrochloric acid or other constituents of the gastric juice affect fermentation and to what degree. These experiments are concerned with the alcoholic fermentation by yeast of one carbohydrate, glucose. Pure enzyme extracts are purposely not used because it is in such a form as the yeast cells that the agents producing fermentation enter the alimentary tract.

EXPERIMENTAL

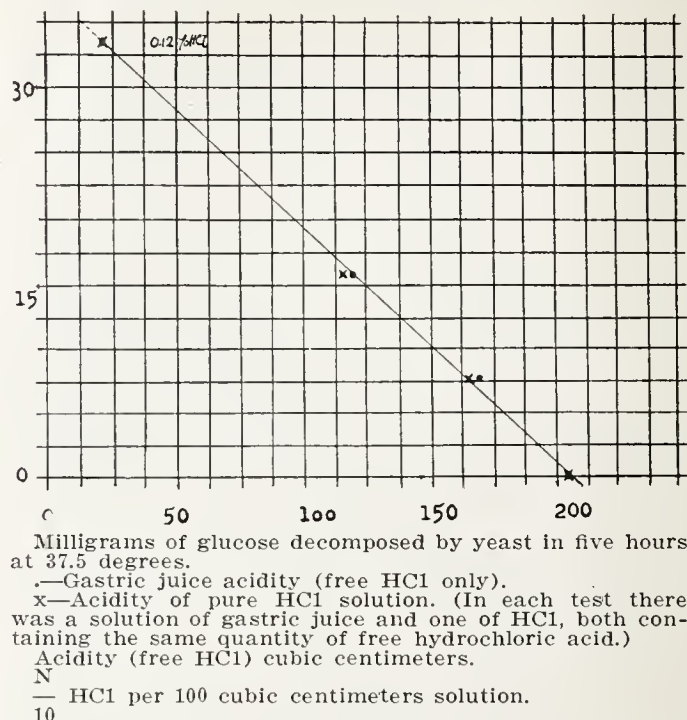
The gastric juice was obtained by the use of a Rehfuß tube with a modified tip. According to Hawk² the secretion of the juice takes place as well following the ingestion of water as of the test meal. Using this method, one may obtain a juice free from foreign matter, and more suitable for use in exact experiments. In these experiments, especially, would it be undesirable to have any sugar present in the collected juice, because the sugar concentration must be known accurately.

The gastric juice was collected in the morning, no food having been taken since the previous evening. Three hundred cubic centimeters of water were ingested, and 45 to 50 minutes later the stomach tube was swallowed and the entire contents of the stomach were aspirated.

The juice was strained through cloth, and was then analyzed by Töpfer's method³ for (1) total acidity; (2) free acidity; (3) free hydrochloric acid; (4) combined acidity; and (5) acidity due to organic acids.

Standard 10 per cent solutions of dextrose were used, these being subsequently diluted in the tests to give a concentration of 2 per cent glucose. The sugar concentration was kept constant throughout

FIG. 1—RELATION OF THE DECOMPOSITION OF GLUCOSE BY YEAST TO THE ACIDITY OF GASTRIC JUICE AND OF PURE HYDROCHLORIC ACID SOLUTIONS.



the series so as to make the results more comparable. In these experiments each test solution contained 500 mg. of glucose.

The gastric juice, or substance the effect of which was being tested, was added in the specified quantity to 5 cc. of the dextrose solution. A piece of Fleischmann's yeast accurately measured and weighing 0.120 gm. was then added and the whole was made up to 25 cc. with water. The mixture was incubated at 37.5 for five hours, and after that time the amount of dextrose remaining in the solution was determined by the use of Benedict's quantitative sugar reagent.

Knowing the concentration of the sugar in the original solution, the degree of action is evidenced by the difference between the original concentration and that determined at the end of the test. Controls, in which no gastric juice was placed, were run with most of the tests to show the amount of action which would normally take place.

DISCUSSION

Due to the fact that the different samples of juice varied in acidity, it is not convenient to average a group of results, therefore a typical series will be taken to show the facts.

Figure 1 illustrates the effect of different concentrations of juice on the decomposition of the dextrose. With no juice present there were decomposed 205 mg. of dextrose, out of a total of 500 mg. originally present. (It must be remembered that the optimum temperature for zymase is much below 37.5.) As is shown in the chart, the action of the yeast decreases in a relatively direct proportion with the increase in concentration of hydrochloric acid. When a mixture is reached having an acidity of 32.2 cc. tenth-normal hydrochloric acid per 100 cc. of solution (the most concentrated used), only 20 milligrams of dextrose are broken down in five hours. This represents about 4 per cent of the total

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sugar content of the solution, and is not much more than the limit of error in these experiments. Since the concentration of hydrochloric acid (free) in this case was about 0.12 per cent, and since the normal concentration of the acid in the mixed juice in vivo is 0.12 to 0.20 per cent, it is evident that the yeast action is decomposing the carbohydrate in the normal stomach is very slight.

The next step was to determine what constituent of the gastric juice exerted the inhibitory action. A solution of hydrochloric acid was prepared having a concentration equal to that of the free hydrochloric acid in a sample of juice. Parallel runs were made using the gastric juice in one set and the acid solution in the other. The results are plotted in Figure 1. It is seen that the correspondence in the two series is very close, showing that the hydrochloric acid in the juice is practically entirely responsible for the inhibitory effect. In cases involving a reduction of free hydrochloric acid in the gastric juice, then there would be a possibility of the action of fermentive organisms or their enzymes on foods.

SUMMARY

The following facts should be of interest to physicians:

1. The effect of gastric juice on the alcoholic fermentation of dextrose by yeast in vitro has been determined. There is a direct relation between the acidity of the juice and the inhibition of the fermentation.
2. At a concentration of hydrochloric acid of 0.12 per cent the action of the yeast is very slight. At the usual acidity in vivo there may be safely said to be no appreciable carbohydrate decomposition.
3. The factor almost wholly concerned with the inhibition is the free hydrochloric acid of the gastric juice.

REFERENCES CITED

1. Gregerson, J. P.: *Centr. Bakt. Parasitik. Abt.*, 77, 353, 1916 (accessible in abstract only).
2. Bergeim, Rehfuß, and Hawk: Direct Demonstration of the Simulatory power of Water in the Human Stomach, *J. Biol. Chem.* 19, 345, 1914.
3. Hawk, P. B.: *Practical Physiological Chemistry*, 8th ed., p. 176 (Phila.).

Three Million Deafened School Children—Recent surveys of the condition of the hearing of school children in the United States indicate that more than 3,000,000 have hearing defects. The detection and the medical handling of these deafened children are discussed by Edmund Prince Fowler and Harvey Fletcher, New York (*Journal A. M. A.*), and the results of some extensive tests given. It is suggested that each school should have permanently a quiet room for the examination of the eye, the ear, the nose, and the throat. Each school should have access to a phonograph audiometer (Western Electric Company, No. 4-A), equipped with forty telephone receivers or its equivalent and a tone range audiometer (Western Electric Company, No. 2-A), or its equivalent. Special classes for lip-reading should be provided in each school during school hours for the deafened child, which should be conducted by teachers trained to impart this knowledge. (This is now being done very efficiently in several schools.) Special schools for the deaf should be provided for those having a great hearing loss. The amount of deafness requiring this special care should be determined from experience, after the first method of teaching has been put into practice.

EXPERIENCES WITH THE BISMUTH TREATMENT FOR SYPHILIS

By IRWIN C. SUTTON *

DISCUSSION by H. P. Jacobson, Los Angeles; Robert F. Day, Los Angeles; Samuel Ayres, Jr., Los Angeles; M. W. Hollingsworth, Santa Ana; Howard Morrow, San Francisco; Harry E. Alderson, San Francisco.

THE fog of secrecy which surrounded the formulae of the various bismuth preparations has been gradually lifted until it is possible at present to read on the label exactly what percentage of the drug is present and in what form. American products are superior to foreign ones in tolerance, therapeutic efficiency, character of promotion and accuracy of labeling. The products of the Metz Laboratories, of Powers and Weightman, the Dermatological Research Laboratories, and Parke, Davis & Company are made by Americans and should be used by us. A tabloid description of the more common preparations follows:

Tartrobismuthate of Potassium and Sodium. was the first product to be employed in the treatment of syphilis. The insoluble form is an "emetic of bismuth." It contains from 40 to 60 per cent of bismuth suspended in oil. Sazerac and Levaditi have established that 0.01 gm. of the tartrobismuthate per kilogram will make the treponemata disappear from active lesions in the rabbit in two or three days. They conclude that the therapeutic dose is, therefore, much under the toxic dose. For use in man they advise intramuscular injections. Fournier and Guenot have experimented to find the optimum effective dose in man and advise 0.10 gm. per day. They give the injections of 0.30 gm. twice a week, giving, therefore, 2 to 3 gm. a month. In instances of intolerance they advise the diminution of each dose to a biweekly one of 0.10 to 0.20 gm.

Ampules of two or three cubic centimeters contain a white deposit formed by the salt, surmounted with a layer of transparent oil. In order to render the product homogeneous the ampule must be shaken vigorously. A very satisfactory preparation is made by the Dermatological Research Laboratories of Philadelphia.

Soluble Tartrobismuthate (Curalues Soluble, Tarbisol Solution, Luatol, Sigmuth, Bismosol) contains about 48 per cent of active bismuth. Janselme has employed it in a glucose and carbolic acid solution in a dose of 0.10 per cm. It is given every two days in a series of twenty injections. It exists in two other preparations, an aqueous solution of bismuthotartrate of diethylamine, and in an aqueous solution of tartrobismuthate in sulphur medium, a dose of 0.05 of bismuth metal per each ampule of 2 cm. (Sigmuth). The injections may be given twice a week in the muscles. This product is manufactured in this country by Powers-Weightman-Rosengarten, and I am glad to testify to its potency and tolerance.

Iodobismuthate of Quinin (Quinobismuth or

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Quinby, Erythrolues, Rubyl). This drug is obtained by the action of iodoquinine on a solution of nitrate of bismuth.

It contains about 30 per cent of metallic bismuth and is, therefore, less rich in bismuth than tartrobismuthate; but with the combined action of the quinin and the iodide against the protozoa, its action is possibly more efficacious than the others. The drug is of a vermilion color and is held in a 10 per cent solution of oil. Certain preparations contain only 5 per cent.

Injections are given in 0.20 to 0.30 gm. until 3 gm. of iodobismuth is given in a month.

Phenylformitate of Bismuth (Bismudol) is put out by the H. A. Metz Laboratories of New York, in compressible ampules. Each "collapsule" contains 3 grains, or 0.19 gm. of the phenylformitate of bismuth suspended in palmitin, representing 68 per cent of metallic bismuth. This combination permits slow and complete absorption and may be adapted for "depot" treatment. Due to the fine state of division of the powder in the fatty excipient, this product is exceedingly well borne when given deep into the muscles. There is almost complete lack of pain and soreness after its use.

After sterilizing the flexible capsule with alcohol, the end is clipped off and the drug is expressed into a comfortably hot syringe. Injection is then made after assurance that the tip of the needle is not in a blood vessel. Injections are administered twice weekly until twelve or sixteen are given.

Bismuth Metal (Neotrepol). Sazerac and Levaditi have obtained the metal in a fine state of division by the reduction of the tartrobismuthate of sodium. The bismuth is then held in suspension in a 10 per cent dilution of an isotonic solution.

Following experimentation on rabbits, this product was extensively used in man by Fournier and Guenot. The therapeutic dose is 0.15 gm. to 0.20 gm. per injection. The total dose is 2 gm. of bismuth administered in a series of ten to twelve injections given twice a week, given deep in the gluteal muscles. I have seen some frightful abscesses from its use.

Bismuth Salicylate, made by Parke, Davis & Company is very popular in this country. Like all insoluble drugs it is slowly eliminated, although paradoxically it seems to be rapidly absorbed, according to the work of Schiller. It is put up in ampules of 0.13 gm. (2 gr.) in olive oil with the addition of 10 per cent camphor and 10 per cent creosote. At the time of injection it casts a much more marked shadow in the muscles, according to the roentgenograms taken by Charles W. Stewart, than does the tartrobismuthate. Only a faint shadow is found after a week following the injection. Juliusberg approves of the intramuscular injection of the insoluble compounds, for, "while this method is open to many disadvantages theoretically, the advantages actually offset them." This method may lead to accumulation with sudden absorption and undesirable complications, but he believes its value to the patient is incomparably greater than soluble compounds given intramuscularly or intravenously. The "depot" treatment, as pointed out by Levaditi,

allows the patient to continue to receive treatment after the injections have been stopped. Where rapid saturation of the body is desired it would seem best that a soluble compound be used first.

The dose is one ampule three or four days until twelve or fifteen injections are given according to individual indications. This drug should never be given intravenously. It is well tolerated by the muscles, and local reactions are few. It may in susceptible persons produce severe stomatitis effectively relieved by graduated injections of sodium thiosulphite.

Since the introduction of bismuth therapy in this country I have followed a modification of Stokes' technique in the intramuscular injection of this drug. Briefly, this consists of the following points:

The patient lies prone on his abdomen with the feet "toed in."

The needle attached to the syringe is inserted with a rapid down stroke into a point in the inner lower part of the upper outer quadrant of the hip.

The needle is detached and allowed to remain *in situ*, while the syringe is loaded with the well-shaken contents of the ampule.

The injection is then slowly made with the final insertion of an air bubble to clean the needle and the needle track.

TREPONEMACIDAL ACTION

The treponemacidal action of bismuth is very powerful. The organisms disappear rapidly from the contagious lesions. Sazerac and Levaditi could not recover viable organisms from either chancre or mucous lesions after the first or second injections three or four days after treatment was instituted. This energetic treponemacidal action is revealed clinically by the Herxheimer reaction, which may be provoked by the first injection. "The roseola often becomes red and confluent and the temperature may rise to 100 degrees F. six to twelve hours after treatment."

Jeanselme and Blamoutier have reported two cases of Herxheimer reaction. One with a roseola and the other with a papular reaction. In the second patient there was at the same time a marked hepatic congestion.

McCafferty believes that the immediate action of bismuth in primary and secondary syphilis is as effective as arsphenamin, although slower in action. Ehlers and Sloth found 20 per cent of Herxheimer reaction in secondary syphilitics treated by them. Marie has noted an erythematous reaction occurring at the site of a chancre and other lesions. He also has seen a reaction in the central nervous system, consisting of lightning pains and headache, return of a hemiparalysis, and similar reactions.

The action of bismuth on the chancre depends on the size and the amount of infiltration of the lesion. A chancre 4 to 6 mm. in diameter is cicatrized about thirteen days after four injections of a soluble salt; when the lesion is large and very indurated twenty or twenty-five days are necessary. Healing by bismuth therefore compares favorably with the results from other drugs. Klauder has found treponemata absent twenty-four hours after the injection of 0.2 gm. of bismuth.

The action on early skin lesions is rapid, headache, lassitude, and bone pains disappear the day after the first injection. Mucous membrane lesions heal four or five days after the beginning of treatment. The larger papuloerosive lesions heal after eight days and ten injections. The hypertrophic plaques are healed after fifteen or sixteen days. Infiltration remains sometimes as long as fifteen or twenty days and four or five injections. The skin lesions are often more rebellious than those of the mucous membrane. The roseola usually disappears with two injections. The papular syphilides vanish in fifteen or twenty days. The lichenoid eruption on the neck only disappears in about twenty days and five injections. Leucoderma colli is not influenced by treatment.

Bismuth treatment shows a marked efficiency in its action on the late cutaneous lesions of syphilis. A large ulcerated lesion on the buttock of several years' standing was healed in twenty-eight days and after seven injections. Osteoperiostitis and gummatous leg ulcers seem to be more favorably influenced by bismuth than by mercury. Schwartz and Levin believe that there is less danger of neurorecurrence during the secondary period than with the use of arsphenamin.

Three cases of malignant syphilis treated with bismuth have been reported in the French literature. One with numerous ulcerations and a general eruption of papular lesions was completely healed in a month after a dozen injections equivalent to a total dose of 3.60 of quiniobismuth. This is rather unexpected, for bismuth seems too depressing to be the drug of choice in malignant syphilis.

Bismuth seems to have a certain election for nervous tissue. Schiller found it in the spinal fluid within ninety-six hours after injection, and early nervous system syphilis responds well to the treatment. Following the work of Brown and Pearce, the conception of resistance building in the management of syphilis is becoming more appreciated. Klauder does not believe that bismuth inhibits immunologic reactions as arsphenamin probably does, and he expects to find less early neurosyphilis following irregular and lapsing treatment with it. In a case of acute syphilitic meningitis the headache disappeared after three or four injections, and paralleling the clinical improvement there was a rapid lowering of the lymphocyte count of the spinal fluid. Marie and Fourcade reported to the Society of Medicine of Paris (October, 1921), favorable results following the employment of hydroxide of bismuth. They recommend caution in commencing treatment for fear of provoking icterus and phenomena of excitation. These recommendations are essential in treating general paresis.

Diffuse syphilitic infection of the meningoencephalitis type is very rebellious to treatment. There is little to be done to prevent the profound degeneration of the cerebral cortex in general paresis. Only pseudoparesis seems ameliorated by bismuth. Bismuth does not change the positive Wassermann reaction in cases of confirmed general paresis. Localized lesions (gummata, arteritis, paraplegia, aphasia, etc.) are much more influenced by treatment. Hudelo and Milian have confirmed the happy re-

sults obtained by bismuth where there is an arsenical resistance or mercurial intolerance.

Several cases of tabes have been reported in the literature as being benefited by bismuth treatment. Improvement consisted in the disappearance of lightning pains, amelioration of bladder symptoms, and changes in the spinal fluid, consisting for the most part of a lowering of the cell and protein estimation. The encouraging results attained by Foster and Smith are summarized as follows:

"Twenty-three cases of tabes and ten cases of paresis were treated with bismuth and observed from four months to one year afterward. Improvement in subjective complaints was noted in nearly every case. The treatment was especially effective for pain, numbness, urinary disturbances, and ataxia. The prompt relief from severe pains was gratifying; some of the patients who had been chair-fast became able to walk. The incontinence and retention of urine were either completely relieved or improved in most cases. Impairment of vision did not progress in any case, and in one case it was definitely improved. The findings on neurologic examination were usually unchanged, and there was no marked influence on the serology. One case of paresis showed a remission following treatment which may or may not have been induced by treatment. Stomatitis and local indurations were the only ill effects, both of which can be avoided by proper precautions. In our experience bismuth has yielded as good results as any other form of antiluetic treatment in cases of tabes and paresis."

The more bismuth is employed in late syphilis the more its powerful action on the different localizations of syphilis is appreciated. Examples from the French literature are: amelioration of an aortic aneurysm (Fournier and Guenot); relief of a gastric ulcer when arsenic was not tolerated (Emery and Morin); amelioration of albuminuria still present after a month of the usual treatment (Lortat-Jacob and Roberti). Bismuth is better supported by patients who have renal sclerosis or albuminuria from various causes than are other drugs, and seems to be the drug of choice where treatment is complicated by the presence of kidney lesions. The recovery of a syphilitic sarcocele followed after six weeks. It recovered its normal sensibility and volume in fifteen days (Lortat-Jacob and Roberti). A pregnant woman covered with an early syphilitic eruption gave birth to a healthy child at full term (Ehlers and Sloth).

The syphilitic origin of diabetes is the order of the day in France. Bory has reported to the Société Medical des Hopitaux a cure with bismuth of a case of diabetic glycosuria occurring in a heredo-syphilitic. There was an arsenical treatment outlined to reduce the output of sugar, but this had to be changed because of arsenic intolerance.

ACCIDENTS AND INCIDENTS OF TREATMENT

About the most serious accident which may befall a patient under treatment with bismuth is a bismuth stomatitis. This is rare where the urine is watched for renal irritation and in those patients who take good care of their teeth and gums. As soon as the stomatitis is recognized the drug should be stopped,

a saline cathartic given and graduated doses of sodium thiosulphite administered. Next in importance is gluteal abscess and nodule formation from intramuscular injection. This may be prevented by a proper technique of administration, hot sitz-baths, red light exposures, and avoidance of too large a dose.

Nephritis and hepatitis are rare, but the ever present menace of the Herxheimer reaction must be remembered, especially in the presence of an acute process in an important structure such as the eye, central nervous system, or the heart. There is a certain depressing action attributed to bismuth which is expressed by lassitude, "bismuth pallor," some loss of weight, and anorexia. This is seen more often in those patients who are sensitive to arsenic and who, therefore, receive bismuth alone. I have found only one patient so far who was definitely resistant to bismuth treatment. He developed tertiary lesions of the skin a month after his primary lesion and after he had been heavily treated with bismuth. These only healed on the exhibition of arsphenamin.

Probably the main field of bismuth treatment is in those patients who cannot have arsenic because of an allergic type of response to it. Bismuth cannot be said to have dethroned arsenic as a remedy for syphilis, but it is a good substitute. It undoubtedly is a powerful resistance builder and if the conception of healing syphilis described by Brown and Pearce, and Warthin should become popularized, bismuth may become our sheet-anchor in the treatment of this protean disease.

DISCUSSION

H. P. JACOBSON, M. D. (1016 South Alvarado Street, Los Angeles)—I wish to compliment Doctor Sutton upon the timeliness of the subject-matter and the comprehensive manner in which he has presented it to us. There isn't much to be added to what he has so thoroughly covered except to emphasize that under no circumstances should bismuth be employed either in primary or early secondary syphilis as a substitute for or to the exclusion of the arsphenamins or their derivatives. I thoroughly agree with him that bismuth therapy has become definitely established as a remedy par excellence in the treatment of late secondary and tertiary syphilis as well as an adjunct to the arsenicals in primary and early secondary syphilis. While it is conceded by all recognized syphilographers abroad as well as in this country that bismuth is a definite spirocheticide, the position assigned to it in the therapeutic armamentarium is only secondary to the arsenicals.

One more point that I should like to call attention to in this connection is the possible toxic effects produced by this drug, which I have not seen recorded in the literature, and that is a peripheral neuritis. I had one such effect produced in one of my patients after several doses of bismuth. While the patient in question was an alcoholic, the possibility of an alcoholic neuritis was eliminated by a nationally known neurologist. A chemical examination of the urine in this case disclosed the presence of bismuth in sufficiently large traces to confirm our clinical impression that it was peripheral neuritis, due to the administration of bismuth.

ROBERT V. DAY, M. D. (Baker-Detwiler Building, Los Angeles)—Doctor Sutton has given us a splendid up-to-date digest of the world's literature containing the conclusions of many of the world's foremost syphilographers on bismuth therapy in syphilis.

Acknowledgment of the undoubted value of bismuth preparations in the treatment of syphilis was slow to come and gradual in its general acceptance. Only time and the researches and experiences of thousands of

syphilologists condensed into a reasonable perspective will assign to it its true sphere of usefulness. Like preparations of metals of the higher groups generally that are employed as treponemicides, one must constantly be on the lookout for toxic symptoms. Examination of the urine preceding the administration of each dose of preparations of bismuth, mercury, arsenic or silver should never be omitted. Occasionally one observes a leucopenia accompanied by a marked diminution in the number of red cells and hemoglobin percentage. A concomitant nephritis with the presence in the urine of much epithelium undergoing fatty degenerative changes, is occasionally observed if the treatment has been too energetic.

Sutton is to be commended for his terse analysis of the present status of bismuth therapy in syphilis.

SAMUEL AYRES, JR., M. D. (2007 Wilshire Boulevard, Los Angeles)—Bismuth has come to stay. I have used it now for about two years in the place of mercury, and I have yet to see my first untoward effect. I have seen it well tolerated in patients intolerant to arsenic, and also in one patient who developed local reactions to each injection of mercury. However, in one patient who has been Wassermann-fast for about six years it had no effect whatever on the Wassermann reaction and in one case of neurosyphilis with negative blood Wassermann and negative spinal fluid, but with Argyle-Robertson pupils, lightning pains, ocular ptosis and bladder incontinence, no improvement in symptoms was noted after more than thirty injections in two courses interspersed with sulpharsphenamin and triarsamid.

I have always used bismuth in courses of fifteen or twenty injections following a course of one of the arsenicals. My experience has been with Parke, Davis bismuth salicylate and with metallic bismuth, both of which have given complete satisfaction. Doubtless other preparations are of equal value.

Sutton has ably summarized our knowledge of the subject, and I agree in general with his findings.

M. W. HOLLINGSWORTH, M. D. (First National Bank Building, Santa Ana, California)—It has been a pleasure to read Doctor Sutton's paper on bismuth therapy, a subject with which he is so familiar. Bismuth is taking a place in the therapy of syphilis almost equal to that of the arsphenamins. Bismuth possesses the double advantage of combining the parasitocidal effect of the arsphenamins with the immunity building properties of the mercurials. It presents an ideal drug with which to begin treatment upon any excepting primary lues.

Sutton quotes Schiller as having demonstrated bismuth in the cerebrospinal fluid. Several later investigators have been unable to confirm this. E. Jeanselme, M. Delelande, and Terris were unable to find bismuth in the cerebrospinal fluid, using the most sensitive chemical tests in a series of patients with cerebrospinal syphilis who had received various preparations of bismuth intramuscularly in large quantities.

At the White Memorial Dispensary in the last twelve months we have administered over 1100 injections of bismuth. After using a variety of proprietary preparations we have finally adopted bismuth subsalicylate, which we have our pharmacist make up in one ounce wide-mouth bottles at a cost of about \$2 per fifty injections. A solution of 2 per cent benzocain and 10 per cent camphor is effected in oil of sweet almonds by heat. On cooling, bismuth salicylate is triturated into this medium 10 gms. to a 100 mls., total volume.

Our observation shows no other bismuth salt to be in any way superior to the salicylate, which happens to be the least expensive. Toxic effects are usually due to too heavy a dose, which should be in exact relation to body weight.

We believe 0.1 gm. of bismuth per 110 pounds of body weight weekly from ten to twelve weeks to be adequate. A blue piston tuberculin syringe is ideal for properly graduating the dose.

HOWARD MORROW, M. D. (384 Post Street, San Francisco)—The advent of bismuth into the therapeutics of syphilis is most welcome because of the numerous instances in which the arsphenamins and mercurials are either poorly tolerated or contraindicated for other rea-

sons. The exact status of the drug in the treatment of syphilis has not been established. This will only be determined by years of scientific study. It is rather premature to state that bismuth will replace either mercury or arsenic in the treatment of syphilis.

Although animal experimentation would indicate that bismuth is a very powerful agent against the treponema pallida, personal as well as the experience of others does not fully corroborate this. Mucous patches of the mouth remained unchanged and constantly positive for treponema after three weeks of intensive bismuth therapy. A flat papular syphilide of the late secondary type remained unchanged after six weeks of a preparation of bismuth, to involute rapidly under nearsphenamin. These experiences should lead us to a very careful study of the clinical value of the drug and encourage the gathering of data upon the subject.

HARRY E. ALDERSON, M. D. (490 Post Street, San Francisco)—Sutton's paper is very interesting, for bismuth therapy of syphilis has been on trial now for about five years and we are in a position to form conclusions as to its temporary effectiveness at least. In our clinic at Stanford and in private practice we have given over 5500 injections of the preparation. Bismuth has only been used on humans since 1921. It will take observations of many hundreds of cases over a period of years to finally determine its real value, and for the present it would be unwise to neglect other treatment. Although we are accustomed to seeing early and late lesions respond readily to bismuth medication, we find that the effects usually are brought about more slowly than by arsphenamin injections. In some few cases skin and mucous membrane lesions have continued developing during the course of bismuth injections. The next time this occurs we are going to increase the dose and shorten the intervals between treatments. Naturally some individuals might be expected to absorb the preparation more rapidly and more completely than others. Bismuth has proven to be a good substitute for the arsphenamins when for various reasons the latter had to be discontinued, but we feel that arsphenamin still is the most valuable agent in combating syphilis. The relative slowness of its action makes it inferior to arsphenamin in ridding active skin and mucous membrane lesions of spirochetes pallidiae. We have had no accidents or serious complications.

At present we are using bismuth phenylformitate (0.19 gm. dosage), and bismuth salicylate (0.13 gm. dosage). As we are averaging about sixty injections weekly, it would be very desirable if the preparations could be put up in large jars, but the manufacturers do not seem to feel that the mixture would remain long of uniform consistency if put up in bulk, so we shall have to continue using the small collapsibles and ampules containing individual doses.

Kahn Test—J. E. Houghton, Oscar B. Hunter and Thomas M. Cajigas, Washington, D. C. (*Journal A. M. A.*), regard the Kahn test as being a superior method for the serum diagnosis of syphilis. Unlike the procedure of the Wassermann test, which consists of arbitrary steps, the procedure of the Kahn test is based on a scientific foundation and is free from such steps. The Kahn test is comparatively simple, direct and rapid, enabling clinicians to obtain Kahn reports from laboratories within several hours after submitting blood specimens, and in emergencies in less than an hour. The Kahn test may be carried out everywhere in the world with the same degree of accuracy, thus rendering available a serum test for syphilis in the tropics and in other parts of the world where the Wassermann test, as a result of its complexity and use of animals, is either not available or available in a very limited degree. The Kahn test consists of three serum procedures and two spinal fluid procedures capable of giving clinicians far more information in connection with the diagnosis and treatment of syphilis than the Wassermann test. The Kahn test is more sensitive than the Wassermann test in treated cases and in the primary stage of syphilis. The test is also somewhat more sensitive than the Wassermann test in other stages of syphilis. The Kahn test has removed the serum diagnosis of syphilis from empiricism and placed it in the realm of quantitative science.

THE DIAGNOSIS OF ADRENAL TUMORS

By THOMAS E. GIBSON *

(From the Department of Urology, University of California Medical School)

A differential diagnosis of adrenal tumors from other growths, as well as between cortical and medullary tumors of the gland itself, can be made as a rule by their clinical manifestations. The added information gained by a urological investigation is often of decided value.

Adrenal tumors give rise to three distinct syndromes: (1) the genitosuprarenal; (2) the Hutchison; and (3) the Pepper.

The genitosuprarenal syndrome occurs only in cortical tumors (carcinoma, hyperplasia, adenoma) and is characterized in the female by virilism of pseudohermaphroditism, and in the male by precocious puberty. The sexual changes produced are always in the direction of the adult male type, irrespective of sex. The adult male shows no characteristic sexual alterations. Cortical tumors occur as frequently in infancy and childhood as in the adult.

Hypertension is frequently associated with cortical tumors.

Pigmentation occurs rarely in cortical tumors and never in medullary tumors.

The common tumor of the adrenal medulla is the neurocytoma, or "sarcoma." Medullary tumors are about as frequent in occurrence as cortical tumors. They are peculiar to infancy and childhood. Two types occur: (1) the Hutchison, characterized by early metastasis to the orbit producing unilateral exophthalmus, and (2) the Pepper, characterized by rapid abdominal enlargement due to metastasis to the liver. The primary growth generally remains small and may only be discovered at autopsy.

The prognosis in adrenal tumors is almost uniformly bad. Occasional cures are reported in cases of cortical tumors.

The treatment is surgical and radiological. A preliminary urological investigation is essential not only as a diagnostic measure, but to determine relative renal function, since it is often necessary to remove the kidney with the tumor mass.

In a series of 47,069 hospital admissions at the University of California Hospital, nine are recorded as adrenal tumors. Only four were proved primary adrenal tumors. They exemplify very well the three clinical syndromes produced by adrenal tumors.

DISCUSSION by A. A. Kutzmann, Los Angeles; Miley B. Wesson, San Francisco; William E. Stevens, San Francisco; H. Lisser, San Francisco.

THE physician is seldom called upon to make a diagnosis of tumors of the adrenal glands, yet he must frequently diagnose abdominal conditions, and in the differential diagnosis of many abdominal conditions adrenal tumors must be given due consideration. Often the adrenals are forgotten, and even though considered the lack of general knowl-

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edge of their clinical manifestations is responsible for many failures in diagnosis.

Adrenal tumors give rise to *three distinct clinical syndromes*. A knowledge of these renders the diagnosis of adrenal tumors comparatively easy not only in differentiating them from other tumors, but also in distinguishing between the cortical and medullary tumors of the adrenals themselves. Unfortunately most textbooks do not clearly portray these syndromes and the literature is fragmentary.

The object of this paper is to bring together the facts of clinical importance in the literature and as exemplified in a series of cases at the University of California Hospital.

INCIDENCE

The comparative rarity of adrenal tumors is shown by the statistics of Williams, who found but one in a study of 8378 tumors affecting various parts of the body; in 36, or over one-half of which the subject was a child. Ramsay, in 1899, collected but 67 cases of malignant adrenal tumor from the literature; Gallais (1912) 51 (including four of his own) of cortical tumors associated with sex alterations, all of them in women and children; Frew (1910) analyzed 51 (including three of his own) of medullary tumors of the adrenal. Cortical and medullary tumors, therefore, seem to occur with about equal frequency. From July, 1913, to March, 1926, there have been 47,069 admissions to the University of California Hospital. Nine of these are recorded as having adrenal tumors, four of which were proved primary tumors of the adrenal.

PATHOLOGY

Pathologically, adrenal tumors fall into two main groups: (1) carcinoma of the cortex, and (2) neurocytoma (sarcoma) of the medulla. Other types of tumor are too rare to be included here.

Cortical carcinoma, or hypernephroma, as it is also called, arises probably on the basis of cortical hyperplasia or adenoma formation. These benign precursors of carcinoma give rise to the same clinical picture of cortical adrenal tumor as does carcinoma itself.

Neurocytoma is the common tumor of the medulla. It is often called "sarcoma" in the literature. Probably the vast majority of the retroperitoneal "sarcomas" of infancy arise in the adrenal medulla.

SYMPTOMS

Adrenal tumors give rise to three distinct clinical syndromes:

(a) Cortical tumors (carcinoma), (1) the genitosuprarenal syndrome.

(b) Medullary tumors (neurocytoma), (2) Hutchison syndrome; (3) Pepper syndrome.

(1) *The Genitosuprarenal Syndrome* — This symptom complex is seen in both benign and malignant conditions of the cortex, and throws interesting light on cortical functions. Hyperfunction of the adrenal cortex (hyperinterrenalism) is now a well-established clinical entity, and is responsible for certain very characteristic alterations in the sexual organs and secondary sexual characteristics.

These alterations are well exemplified in neoplasms of the adrenal cortex.

Changes are very strikingly exhibited in the female by the assumption of male sexual characteristics to which the terms "virilism" or "pseudohermaphroditism" are applied. Cortical tumors occur most often in the female, and are as frequent in infants and children as in the adult. The changes are more marked when they commence in utero before the sexual organs are differentiated anatomically than in the adult when the sex organs are already completely differentiated. Quinby has reported a classical example of the condition in a female who was raised as a boy because of the masculine mental status and male type of external genitalia. Collett (1924) has reported an instance of genitosuprarenal syndrome in a girl 1½ years old. She was pseudohermaphroditic and had an abundant growth of pubic hair commencing at 6 months of age. Development in the female is not only toward the male type, but is precocious as well. As early as the fifth or sixth year the child has the sexual development and secondary sexual characteristics of the adult. In some there is marked obesity, in others unusual muscular development. These children appear prematurely old, and if obese the fat has the distribution seen in an elderly individual. The clitoris assumes penile proportions, and there is a premature and abundant growth of hair on pubis, face, chest and legs, male type in distribution. In some instances the child is precocious mentally, in others mentality is impaired. The female libido sexualis becomes indifferent or masculine. In the adult female amenorrhea occurs in addition to the other changes already noted. In some instances in which excessive muscular development occurs, she finds herself capable of performing physical tasks previously impossible.

In the male infant or child the picture is much the same, that is, toward the adult male type. Precocious puberty occurs, and the child appears old far beyond its years. As a rule there is not a corresponding precocious libido sexualis. An exception is reported in Craterus, a boy who was in the course of seven years a child, a youth, an adult, a father and dead.

Summing up briefly, it may be said that the sexual changes produced by cortical tumors of the adrenal are always toward the adult type irrespective of sex. This statement receives further support in the fact that these tumors occurring in the adult male produce no sexual alterations.

Another symptom of diagnostic importance in cortical tumors is the frequent occurrence, particularly in the young of hypertension. Here we have another manifestation of adrenal physiology about which comparatively little is known. Moffitt has called attention to hypertension in hypernephromas of the kidney, but Keen, Pfahler, and Ellis (1904) believe that the symptom is too inconstant to be of value in diagnosis. Oppenheimer and Fishberg (1924), however, believe that it is of distinct value in cortical tumors of the adrenal. They state that diffuse hyperplasia or circumscribed adenoma formation in the cortex is very common in persons suffering from hypertension, whether nephritic or "essential." Hy-

pertension does not occur in medullary tumors (except in those very rare chromaffin tumors or paragangliomas. These authors conclude that one small group of cases can thus be removed from the great group of so-called "essential hypertension," and may well be termed "suprarenal hypertension." Sometimes in cortical tumor the blood pressure is either normal or below normal and the findings resemble closely Addison's disease, even to the asthenia and pigmentation. Pigmentation is uncommon in cortical tumors and never occurs in medullary tumors.

(2) *The Hutchison Syndrome* — Hutchison (1907) drew attention for the first time to the syndrome which now bears his name. He reported thirteen cases occurring in children from 3 months to 9 years of age. The disease begins spontaneously or after trauma, with ecchymosis of one or both eyelids followed by unilateral exophthalmus, or proptosis of the eyeball. A tumor of the orbit becomes apparent and the auricular and submaxillary lymph nodes are enlarged. The primary growth in the adrenal may remain small and escape discovery until autopsy. The kidney is early surrounded and invaded by the tumor. Metastases to the bones and viscera are frequent.

(3) *The Pepper Syndrome* — Neurocytomas (round cell sarcomas) of the adrenal were pointed out by Pepper (1901) as producing in infants the symptoms of rapidly enlarging abdominal tumor caused by diffuse nodular growths in the liver and adrenal. The adrenal may remain small, but the liver reaches enormous proportions. There is little tendency to local extension or metastases. The growth is rapidly fatal. Both the Hutchison and Pepper types of tumor are of medullary origin, and are peculiar to infancy and childhood.*

DIAGNOSIS

With the clinical pictures of these three syndromes in mind the diagnosis of adrenal tumors from other conditions, as well as the differentiation between cortical and medullary tumors of the adrenal itself, is usually not difficult.

Other conditions which must be differentiated from adrenal tumors are kidney tumors, Wolffian body, mesenteric and pancreatic cysts, splenomegaly, polycystic kidneys, Addison's disease, pineal tumors, and enlargements of the liver which may be due to abscess, metastases, primary tumor, lues and certain blood diseases.

In infancy and childhood the vast majority of abdominal tumors are either renal or adrenal in origin. One in every 200 tumors of adults are of renal origin, whereas in infants and children the proportion is one in every five. Probably an even higher proportion of tumors in infancy and childhood are of adrenal origin. Such would seem to be the case if we analyze the statistics of D'Espine and Piso, who found in 393 tumors in children that 52 per cent involved the eye and orbital structures.

* It must be borne in mind that these tumors do not always arise in the adrenal, but may be primary in the retina or the abdominal sympathetics. Boyd has recently reported some typical examples of these types in an article entitled, "Three Tumors Arising from Neuroblasts," published in Arch. Surg., Vol. 12, p. 1031, May, 1926.

At the Great Ormond Street Hospital (London) tumors in children involving the orbit are considered practically pathognomonic of primary medullary malignancy of the adrenal.

Thus in children differentiation limits itself practically to renal and adrenal tumors. If a large mass, apparently due to an enlarged liver, is felt the evidence favors primary medullary tumor of the adrenal, but if the liver cannot be felt and a mass of large size is in the kidney region, it is very likely renal rather than adrenal. Unilateral exophthalmus, of course, rules out renal tumor in the vast majority of cases. The presence of a tumor mass in the flank with associated changes in the sexual sphere, and possibly hypertension, indicates cortical tumor of the adrenal. In the adult male without sexual changes the difficulty of differentiating renal and adrenal tumor is manifestly enhanced.

The information gained by a complete urological investigation is often of decided value in aiding to the sum total of positive findings and making a definite diagnosis. Characteristically, the pyelogram shows the kidney pushed downward with encroachment on the pelvis and upper calices, as illustrated in Fig. 1. An urological investigation is not only of value in diagnosis but also as regards treatment, because at operation it is often necessary to remove the kidney with the tumor mass, hence the importance of knowing the separate function of the two kidneys.

The unfortunate aspect of the diagnosis of adrenal tumors lies in the fact that with respect to medullary tumors our diagnostic criteria are based wholly on metastatic phenomena. It is rare that the primary tumor is discovered before metastasis has occurred, and, unlike cortical tumors, too little is known of the manifestations of medullary dysfunction to serve as the basis of an entity which would be of help in the earlier diagnosis of these tumors.

TREATMENT

The treatment of adrenal tumors is surgical and radiological. No statistics are available regarding deep x-ray treatment, but it should be tried where surgery is contraindicated. From the surgical point of view the prognosis is almost uniformly bad. This is due in large measure to the fact that diagnosis too often does not antedate the occurrence of metastasis. This is particularly true in medullary tumors in which diagnosis at present rests purely on metastatic phenomena. In thirty-six cases cited by Legueu, there were sixteen operative deaths and a rapid recurrence in eighteen. In fifteen the kidney had to be removed with the tumor mass. Occasional cures are reported in adults so that surgical interference is indicated, at least in cortical tumors, in the hope of obtaining an occasional cure. A cortical hypernephroma reported by Collett (1924) is to date the only one that has been successfully removed in a child. The patient was living and well two years after the operation, and she had lost most of her characteristics of virilism. At operation it is essential to determine, first, the presence of the opposite adrenal and, second, the fact that the disease is not bilateral.



Fig. 1 (Case 4)—Sketch of pyelograms in case of 3 months' old boy with medullary tumor of left adrenal. Note characteristic pressure defect of upper calyces and pelvis, and tortuosity of ureter, due to displacement of kidney downward by the tumor. This case exemplifies the feasibility of cystoscopy in infants of any age.

ANALYSIS OF CASES *

Of nine cases recorded as adrenal tumors at the University of California Hospital only four were proved primary adrenal tumors.

Case 1 was a cortical tumor (hypernephroma) in a man of 57. There were no symptoms pointing to the adrenal except possibly a systolic blood pressure of 190. The clinical diagnosis was carcinoma of the cecum with metastasis to the liver. An attempt at operative removal was unsuccessful and the patient died shortly afterward.

Case 2 was a female, 38, who complained of pain in her right loin, weakness, amenorrhea of eight months' duration, and excessive growth of hair on face, chest, and legs beginning about fifteen months before entry. Examination showed remarkable general hirsutism with male type of hair distribution. The clitoris was hypertrophied; libido sexualis was practically nil. There was no pigmentation and the blood pressure was normal. An attempt at operative removal of a cortical adrenal tumor proved unsuccessful and the patient died the same day.

Case 3 was a Hutchison type of tumor of the

adrenal medulla in a female infant 17 months old. Two months before the mother had first noticed bulging of the left eye. On entry to the hospital left exophthalmus and a mass in the left side of the abdomen was noted. The patient died shortly after operative removal of the mass.

Case 4 was a medullary tumor (neurocytoma) of the Pepper type in a boy of 3 months. There had been a rapid abdominal enlargement first noticed by the mother only a week previously, for which the liver was mainly responsible. It was considered as probably on a syphilitic basis because of suggestive bone changes demonstrated in the x-ray and a paternal history of syphilis. Pyelography revealed a typical defect in the left kidney (Fig. 1). Autopsy proved the tumor to be neurocytoma arising from the adrenal medulla with extensive metastases to the liver.

Five other cases, though not proved primary tumors of the adrenal, illustrate certain features of diagnostic importance.

One was a typical Addisonian syndrome with pigmentation, asthenia and hypotension caused by a squamous cell carcinoma of the left renal pelvis with metastasis to the left adrenal. In two others, in whom there were metastases to both adrenals, there were no symptoms indicative of adrenal involvement. Another patient in whom the diagnosis was never confirmed the possibility of cortical hyperplasia was considered on the basis of obesity, hypertension, and asthenia in a young man of 23.

In conclusion may be mentioned an instance of a typical Pepper syndrome in a female infant of 15 months. Yet bilateral pyelography and surgical exploration of the right kidney were negative. I feel that either the left adrenal was involved by a small growth producing no defect in the pyelogram, or that the tumor was primary in the abdominal sympathetics, as in cases described by Boyd. Unfortunately postmortem confirmation was not possible in this case.

DISCUSSION

A. A. KUTZMANN, M. D. (1052 West Sixth Street, Los Angeles)—Doctor Gibson is to be highly commended on his contribution, and especially on the logical arrangement of the material. Everywhere, especially in textbooks, adrenal tumors have been considered inadequately, and for that reason little is known of them generally.

Successful study, diagnosis and treatment of adrenal tumors entails a knowledge of endocrinology as well as the use of urologic methods. The cortical part of the adrenal is intimately connected with various secondary sex characteristics while the medullary is chiefly the source of adrenalin. The adrenals furnish elements of the endocrine system. These points must be remembered by the urologist because his diagnosis will rest chiefly upon his powers of observation.

Any abdominal tumor in the young should always arouse suspicion as to a kidney tumor first and an adrenal tumor next. In adrenal tumors we are faced with the problem of a silent yet highly fatal disease. There are no signs or symptoms unless the tumor be cortical when we usually find disturbances in the young. The presence of an abdominal tumor may be accidentally found by the mother or discovered only after metastases have occurred to other parts of the body. The favorite site of the metastases is the orbital structures. As a rule there are no urinary symptoms, so that the purpose of any urologic study would be to localize the tumor as well as to determine the integrity of the urinary tract in the event of surgical treatment.

* I am indebted to Drs. W. J. Kerr and H. C. Moffitt of the Department of Medicine, and W. P. Lucas of the Department of Pediatrics of the University of California Medical School for the privilege of reporting these cases.

We must remember that even in the highly malignant tumors of the infant kidney there may be no urinary disturbances, the presence of tumor being the initial sign followed by pain, general weakness, etc., with hematuria a rare occurrence. Therefore, since the majority of these tumors occur in children, every abdominal swelling should be considered as a malignant renal or adrenal tumor until proved otherwise. Very few adrenal tumors occur in adults.

We are concerned with several types of adrenal tumors: in the cortex the highly malignant carcinoma; in the medulla the neuroblastoma or neurocytoma. Of these the neurocytoma is the more important since it probably occurs the most frequently. Mixer in twenty-seven infant renal malignancies found five of this group. As the author has stated, the neurocytoma is of two types. It may occur as a very rapidly metastasizing and diffusely disseminated malignant process in which the primary adrenal growth may be readily overlooked because of its small size or relatively slow growth (Hutchison type). The second (Pepper's type), where the tumor locally grows to a large size without evidence of metastases and cannot always be differentiated from the "embryonic mixed tumor" of the infant kidney. It has been found that these neurocytomas (Hutchison type) metastasize much more freely than the "embryonic mixed tumor" of the kidney, to the flat bones, liver, retroperitoneal glands, lungs, and orbit, while the renal tumor tends to recur locally and invade the local retroperitoneal tissues (21 per cent metastasize—Watson).

I am glad that Gibson has omitted the term "hypernephroma," which has caused much confusion and dispute in the pathology of renal tumors, and used Ewing's classification. The so-called "hypernephromas" of the kidney are probably only types of carcinomas, while the cortical tumors of the adrenal may also justly be called carcinoma. We have no time to go into the relative arguments at this time except to state that the "hypernephromas," in spite of simulating the adrenal cell pattern, contain no adrenalin.

Let me emphasize the importance of early diagnosis because of the high degree of malignancy. The symptoms are so ill defined, except in cortical tumors, that in all obscure abdominal disturbances, unaccountable malaise or abdominal fullness, the kidney region should be very carefully palpated. If a tumor is felt, a complete urologic examination whenever feasible should be immediately undertaken and exploratory operation advised without delay. If resistance is noted in the absence of tumor, an x-ray with air inflation of the colon may be undertaken and an examination made under an anesthetic. It is of great importance to obtain relaxation in the palpation of deep tumors of the kidney region.

I should therefore like to emphasize the frequency of malignant tumors in the kidney regions of the infant, first the kidney, second, the adrenal; their insidiousness of onset, the necessity of as early recognition as possible, because of their great malignancy, tendency to recur and to metastasize and that only early surgical removal offers a chance of recovery.

MILEY B. WESSON, M.D. (1275 Flood Building, San Francisco)—This article is remarkable in that an erudite comprehensive study of one of the most confusing subjects in medicine has been condensed into a short paper with the elimination of perplexing terms so that it is easily understood and of diagnostic value to the general practitioner as well as the urologist. In children one out of five tumors are renal in origin. Emphasis is laid upon the fact that tumors of the adrenal gland are rarer than adrenal tumors of the kidney, and that pain occurs earlier than in ordinary renal tumors because of the rapid extension and pressure on the lumbar nerves. A child that shows any abnormal sexual development, an orbital tumor or a tumor of the liver should be considered as a case of adrenal malignancy until proved otherwise. A complete kidney investigation including cystoscopy, differential phthalein tests, and pyelograms is indicated in all such patients and the findings are almost of pathognomonic significance. However, since diagnosis is never made until metastases occur surgery offers little except an operative mortality. Deep therapy should be used in all cases independent of whether or not an operation is per-

formed. The possibilities and contraindications of deep therapy are not known. It is generally understood that powerful doses simultaneously to both adrenals will cause exodus. Dr. John Rehfish and I have demonstrated in four cases of seminoma of the testicle that this premise is false.

Any individual who has a rapid and enormous abdominal enlargement, or unilateral exophthalmus, or abnormal sexual alterations should be suspected of harboring an adrenal tumor and subjected immediately to pyelography.

WILLIAM E. STEVENS, M.D. (608 Flood Building, San Francisco)—An interesting case of tumor of the left adrenal gland came under my observation a few years ago, and was reported in the *Journal A. M. A.* This patient was followed through a prolonged illness and at necropsy the diagnosis of hypernephroma of the left suprarenal gland was confirmed.

In this case there seems to have been a definite connection between trauma and the development of the hypernephroma. An early diagnosis was rendered difficult by the appearance of symptoms so soon after the injury by the bleeding and hematoma found at the first operation, and because of the negative findings at the second operation. The patient's later symptoms, hypertension—the importance of which is emphasized by Gibson—pigmentation of the skin, tumor mass, weakness and gastrointestinal symptoms, were, of course, suggestive of a tumor of the suprarenal gland. An interesting feature was the brownish discoloration of the skin, although but one of the suprarenal glands was affected. Another unusual feature was the comparatively slow progress of the disease. The majority of suprarenal tumors progress rapidly after the first symptom has appeared. Adenocarcinoma is infrequent in such a young patient; the average age is 44 years.

Several years ago in the study of reports of seventy-four malignant tumors of the adrenal glands found in the literature, the following facts were elicited: Of seventy in whom sex was mentioned, forty-two males and twenty-eight females were affected. Thirty-four per cent occurred in infants or young children, 18 per cent in patients between 6 and 40 years of age, and 40 per cent in patients over 40 years old. Of sixty-seven in whom a definite age was given, the average age was 32½ years. The right suprarenal was involved in 41 per cent, the left in 45 per cent, and both suprarenals in 14 per cent. Metastases occurred early, and were unusually widespread. In this series of seventy-four cases the liver was involved in 27, the kidneys in 16, the lungs in 14, the skull (particularly the orbit, in Hutchison's type) in 11, the opposite suprarenal gland in 9, the peritoneum in 7, the brain in 5, the lymphatic glands, especially the aortic, bronchial and mesenteric glands in 14, the pancreas, heart, mediastinum and ribs in 3, the spleen, intestines and diaphragm in 2, and the ovary in one case.

The most common subjective symptom of which these patients complained, and the first to appear, was weakness. This was present in about 35 per cent of the foregoing patients, and was usually accompanied by loss of appetite and often by vomiting and diarrhea. Next to weakness, gastrointestinal disturbances and pain were the most common complaints, each occurring in about 20 per cent of the patients. The latter occurs when the tumor has attained sufficient size to exert pressure on the surrounding structures. Unlike that due to pathologic conditions of the kidney, the pain in suprarenal growths usually extends from the lumbar region upward toward the corresponding shoulder, and anteriorly across the abdomen.

The objective symptoms that were noted, in the order of their frequency:

1. A tumor mass, which could be palpated, occurred in 38 per cent of these patients. When the suprarenal growth has attained sufficient size the kidney is usually displaced downward and laterally, and it is often possible to feel it in this position. When the suprarenal tumor is large, the kidney may often be felt as a distinct prominence on its surface. Because of its high position behind the ribs, palpation fails to detect a small tumor.

2. Pigmentation occurred in 20 per cent of these patients.

3. Loss of weight occurred in 12 per cent of them.

4. Hematuria occurred in 9.5 per cent. The latter is much less common than in renal growths, a fact of significance in the differential diagnosis. When present it is thought to be due to congestion caused by pressure on the renal vein.

5. Elevation of temperature occurred in 8 per cent of the patients. It is thought to result from necrosis of the tumor.

6. Premature sex development, principally overgrowth of hair, occurred in 8 per cent.

7. Pus, albumin or casts in the urine occurred in 7 per cent. These findings, pointing toward pathologic changes in the kidney, tend to make diagnosis more difficult.

Doctor Gibson's suggestion regarding the advisability of a thorough investigation of the urinary tract in tumor of the upper abdomen is worthy of special emphasis and he is to be congratulated on his interesting and instructive paper.

H. LISSER, M. D. (Fitzhugh Building, San Francisco)—Cushing once stated, in connection with pituitary tumors, that "without the co-existence of a growth which is capable during life of elbowing itself into clinical prominence by crowding aside important adjoining structures, it is doubtful . . . whether either the syndrome of Marie and that of Frolich would ever have been suspected of its long secret alliance with an hypophyseal lesion." However, once it was known that these clinical entities—acromegaly, and dystrophia adiposo-genitalis—were endocrine diseases due to derangements of hypophyseal function, then further observation disclosed that these hormonal alterations could be caused by pituitary lesions other than tumor, or actually develop for many years without localizing neighborhood symptoms of either supra- or intrasellar tumor.

The situation with regard to adrenal tumors is in many respects very similar. Had it not been for the pathologist's discovery of adrenal cortical tumor it is doubtful whether we would be aware today that certain pseudo-hermaphrodites, precocious girls, and virilistic women were victims of cortical adrenal disease. Now it happens in the case of pituitary tumors that the small and bony character of the sella turcica is responsible for erosions from within and subsequent encroachment on the pituitary vicinity which provides localizing evidence attracting the physician's attention, whereas the relatively roomy and yielding abdominal cavity permits considerable growth in the case of an adrenal tumor before local symptoms of pain or pressure bulge upon the horizon. These latter circumstances necessitate familiarity with the syndromes reviewed by Gibson, if we are to recognize the presence of an adrenal tumor; and in the case of adrenal cortex lesions this implies an acquaintance with the remarkable and bizarre endocrine manifestations involving the primary and secondary characters of sex.

Although it has been my lot to study a considerable and varied endocrine material during the last ten years, I had never encountered a case of adrenal cortical tumor until I had the opportunity of being perhaps the first to diagnose and urge operation of the tumor of the right adrenal cortex cited by Gibson as his Case 2. The fatal outcome was none the less merciful, inasmuch as the tumor had already penetrated the inferior vena cava. As Gibson states, the prognosis is generally gloomy, but a favorable outcome from surgical intervention is now and then a possibility. Holmes reports such a fortunate and brilliant result: A young woman, aged 24, had been in excellent health, a handsome, well-built girl up to the age of 17, when menstruation, which had been normal from 13 on, ceased abruptly; abnormal and excessive growth of hair on chin, lips, cheeks, chest, abdomen and extremities, began at about 19 years of age; her well-developed breasts atrophied; her general configuration strongly suggested masculinity; the uterus atrophied and the clitoris became hypertrophied; psychical disturbances were manifested by loss of erotic feelings and lack of modesty. Occasional pain in the right side of the abdomen, and finally a swelling there led to operation; and a benign neoplasm, made up of practically normal cortical tissue, was removed. An astounding transformation occurred. The patient menstruated thirty-six days after the operation (after seven years' absence) and continued

to do so regularly up to the time of report (nine years after operation); the clitoris regressed to normal size; the breasts developed again; the abnormal hairiness began to fall out shortly after the operation and entirely disappeared; and her feminine contours were restored. This constitutes a most convincing example of the astonishing endocrine effects produced by hyperplasia of the adrenal cortex, together with the cure of the disease by removal of the cause.

In addition to stressing the importance of pyelography as a localizing maneuver, I would call attention to the value of cholecystography when the tumor happens to involve the right suprarenal; in Case 2 of Gibson's series, the gall bladder was well visualized, but the shadow was pushed mesialward and downward by the tumor mass; the patient had only vague symptoms pointing to the right side, but the displaced gall bladder shadow, together with the flattening and marked elongation of the right kidney pelvis, clinched the localization.

Doctor Gibson has performed a service by presenting this subject in condensed and simplified form. These tumors are indeed rare, but milder manifestations due to simple hyperplasia are not uncommon. We owe the possibility of recognizing the latter to the most striking cases of tumor, so ably described by Gibson.

DOCTOR GIBSON (closing)—The pathological relation between cortical tumors of the adrenal and "hypernephromas" is still problematical, and space does not permit its discussion. Opponents of the Grawitz theory have gone too far in eliminating adrenal rest as a source of kidney tumors. It is well established that adrenal rests do occur in the kidney, although rarely, and it seems very likely that they do occasionally undergo malignant changes, producing the so-called hypernephroma, or Grawitz tumor. However, the term should be restricted specifically according to the criteria laid down by Grawitz. Undoubtedly many tumors are wrongly called Grawitz tumors that arise from renal epithelium. In atypical cases of both varieties it may be impossible to differentiate positively. Why sexual alterations do not occur in Grawitz tumors is no more understood than the hypertension associated with tumors of the adrenal cortex, which contains no adrenalin.

Wesson has emphasized the rather hopeless prognosis of adrenal tumors. It is unfortunate that we cannot with our present knowledge diagnose medullary tumors before metastases have occurred. However, diagnosis can antedate metastasis in cortical tumors, and an occasional brilliant cure effected.

Stevens' case illustrates the lack of sexual changes in the adult male, which are a diagnostic help in females of all ages and in young males. The pigmentation and blood pressure of 175/120 were of diagnostic value in this case.

"Organization" and "efficiency" are favorite words in modern American life. I am not sure that we are as efficient as we pride ourselves on being, but there is no doubt that we are highly organized. Every morning the postman brings to me—and, of course, to thousands of other householders—appeals for the support of the Society for This or the Society for That. These numerous societies have formidable lists of officers, directors, and boards of advisers. The king pin, however, is generally a paid secretary whose business it is to collect money and discover objects for which the money may be spent. No doubt many of these organizations perform a useful service. Some of them, however—altogether too many, I fear—confirm the dictum of a genial cynic who said to me that "civilization is a scheme which the human race has taken great trouble to invent in order to make itself more trouble."—Lawrence F. Abbott, *Outlook*.

The physician regards himself as worthy of his hire, and almost all medical organizations nowadays establish a minimum charge schedule. But it is by no means a Medes and Persians' affair. His work is, after all, an avocation, and his skill and time are ever at the service of the poorer patient for a proportionately lower fee, just as faithfully as they are rendered the wealthy for a princely compensation.—Editorial, *Medical Standard*.

A NEW FAMILY GROUP OF HEREDITARY AND SPASTIC ATAXIA—ITS DISTRIBUTION IN CALIFORNIA

PRELIMINARY REPORT†

By H. C. NAFFZIGER, M. D.
AND
H. C. SHEPARDSON, M. D.

THIS case is reported not only because of the interest the condition itself elicits—although the disease is of sufficient rarity to warrant its being recorded—but also because of the striking hereditary and familial aspect which has been uncovered since the patient first came under our observation.

In 1861 that form of spinal disease which has since borne his name was originally described by Friedreich. Since that time a large number of cases, either identical or quite similar, have been described in the literature, under various classifications which have been proposed to cover the several manifestations of the condition.

Though called hereditary ataxia the disease is usually sporadic rather than hereditary. In the great majority of the cases, however, the condition seems to be familial in that several members of the same family are affected.¹ Thus Schoenborn² found a family incidence in 114 of the 200 cases he analyzed, yet in a not inconsiderable number of the recorded cases the same disease occurred in the ascendants or in collateral lines, and therefore must be considered hereditary. Both the familial and hereditary aspects

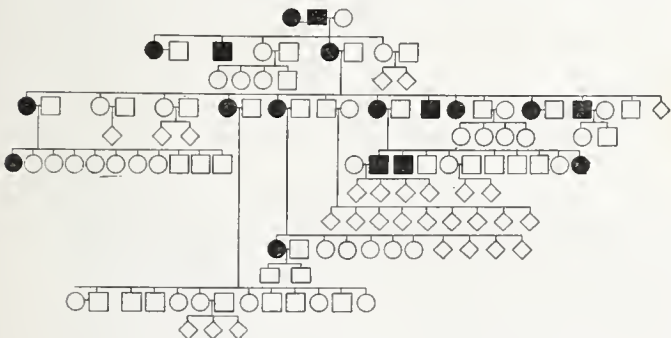


Fig. 1. Family Tree of Hereditary Ataxia—Reported in present article: Squares, males. Circles, females. Diamonds, unknown sex; individuals not as yet investigated. Black figures, individuals with ataxia.

Note—Eighteen cases in four generations.

are strikingly illustrated in the pedigree of the case now being presented.

CASE REPORT

J. C. G., a white American male aged 37, first came under our observation in April, 1924, complaining of difficulty in walking together with some weakness of the legs and arms, and difficulty in speaking. His family first noticed the spasticity about five years previous to that time, and there since has been a gradual but progressive diminution in his ability to control volitional movement. The condition was complicated about three years ago by a fractured skull resulting from a blow on the head with an axe, a residual effect of which is a total blindness of the left eye.

Examination revealed an individual with a markedly spastic gait, drawling speech with slurring of his words, and horizontal and vertical nystagmus. Pyramidal tract involvement was indicated by greatly exaggerated deep

†Read in part before the Section on Neuropsychiatry of the Fifty-fourth Annual Meeting of the California Medical Association, Yosemite, California, May 18, 1925.

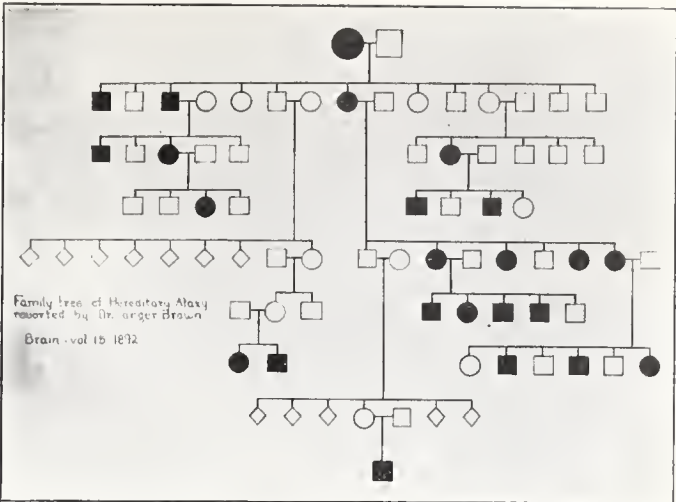


Fig. 2. Family Tree of Hereditary Ataxia—Reported by Sanger Brown, 1892—Square, males. Circles, females. Diamonds, unknown sex. Black figures, individuals with ataxia.

Note—Twenty-four cases in five generations.

reflexes and bilateral ankle clonus. No changes in sensation were elicited. Ataxia, asynergia and dysmetria were pronounced. He had a definite Romberg reaction. Mental changes were marked; judgment was greatly impaired and there were some delusions. Additional tests including Barany reactions indicated multiple lesions, chiefly on the right side, involving primarily the structures in the posterior fossa, principally cerebellar, but also involving other portions of the brain stem. Blood, urine, blood Wassermann and spinal fluid were all normal. A diagnosis of hereditary spastic ataxia was made.

Because of the interesting family history elicited from the patient, a special study—which is even now far from complete—was begun. This, as far as it has been investigated, is given in chart form which is self-explanatory. In a survey of the literature on the hereditary aspect of the disease we were somewhat surprised at the dearth of cases reported in which the genealogy had even been partially investigated. The most complete record that has been found is the classic study reported by Sanger Brown³ in 1892 (also given in chart form for comparison) in which he found twenty-four cases in five generations. Other genealogical studies of interest have been made by Rutimeyer (1883), Nonne (1891), Brock (1893), Bayley (1897), Sprawson (1914), Reitter (1915), Grunewald (1920) and one or two others.

As Oppenheim states, however, abortive forms of Friedreich's disease may undoubtedly occur, while combinations of, and transition forms between, this disease and family spastic paraplegia, progressive muscular atrophy, etc., have been described. In fact, Bing⁴ claims there is a close connection ("an unbroken chain" he calls it) between the various familial diseases such as hereditary cerebellar ataxia, family cerebral diplegia, family spastic paralysis and family lateral sclerosis, while Jendrassik⁵ believes the number and variety of the types of hereditary diseases are great and that they pass one into the other and make any classification impossible. In his second contribution⁶ he says that hereditary nervous diseases have an identical course within the same family, but vary greatly in different families.

It seems probable, therefore, that had it been possible to investigate more thoroughly the genealogy of the recorded cases, isolated symptoms, e. g., nys-

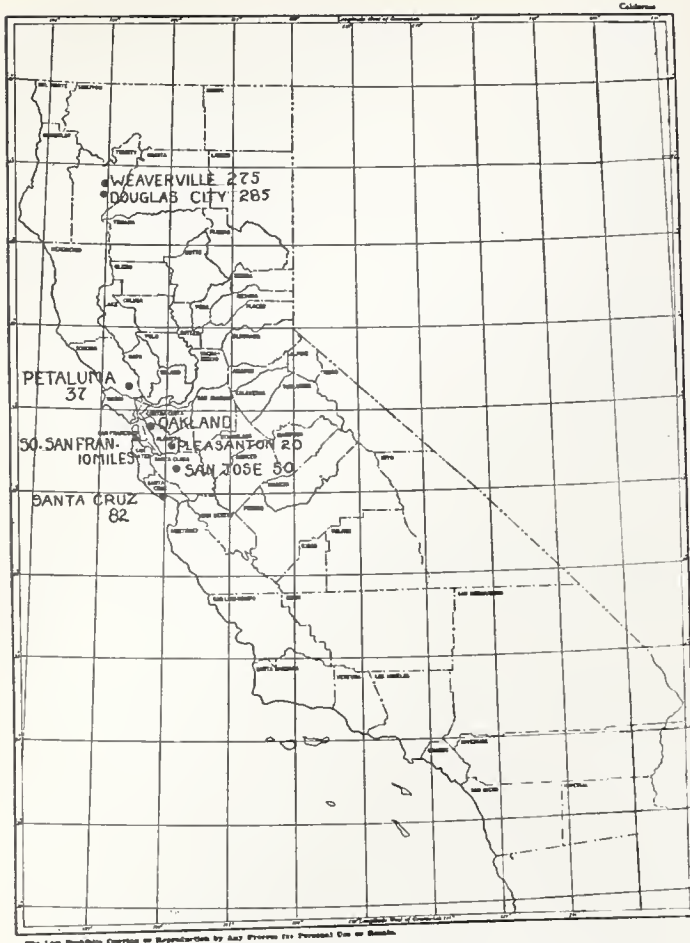


Fig. 3. Map of California showing distribution of family group herewith reported. The figures represent approximate mileage from San Francisco.

tagmus, absent knee and Achilles jerks, positive Babinski, Gordon and Oppenheim phenomena or possibly even some difficulty in walking, would have been discovered. Farnell⁷ found such conditions in ten of thirty-seven members of a family one of which had a definite ataxia, and Menzel⁸ reported a family in which the mother had tremor of the head and uncertain gait, and five of her seven children had evidence of nervous disease. Of these, two sisters and a brother were probably affected similarly to the case of spastic ataxia he reports.

In the family now being studied the patient's grandfather was ataxic. We are informed he had several sisters who were ataxic and that some of their children were ataxic. We have, however, included in the chart only one sister, as this is the only member of the generation to which the grandfather belonged that we are reasonably certain had the disease.

The patient's mother had the disease, having spent the last twelve years of her life in an invalid's chair. This woman had fourteen children, of whom our patient was one. Two died in infancy.

The remaining eleven, some of whom are married and have families of their own, are somewhat scattered throughout northern California. Figure 3 is an outline map showing the location of the cities in which the various members of the family reside, and the approximate distance from San Francisco. The patient is married, lives in Petaluma, and has two children, 8 and 11, both of whom are well. The other married members of the family are quite prolific, as will be noted from the chart, but with

three exceptions their children are well or the families have as yet not been completely investigated.

The first exception is the case of one sister who died several years ago. She was ataxic but had eleven children, one of which is dead. He may have been ataxic although of this we are as yet not certain. Nine of the children in this family are well; the tenth, a daughter who lives near Douglas City, Trinity County, is ataxic.

The second exception is another sister, also ataxic and who likewise died several years ago. There are nine children in her family, three of whom are ataxic. One of the ataxic sons is married and has four small babies.

The third of the sisters who now have children sufficiently old to manifest the disease, is one who, also ataxic, had ten children, four of whom died in infancy. At least one of the living children is ataxic.

The whereabouts and condition of the remaining members of the family, insofar as it is at present known to us, is shown on the chart (Figure 1). The family is scattered over quite a large territory in California, viz., Petaluma, San Jose, San Francisco, Pleasanton, Redwood City, Douglas City and Santa Cruz, and there may be other localities which will later have to be included for some of the members of the fourth generation who have not yet been investigated may have moved from the city in which their parents lived.

From the chart it will be noted that in the four generations there are at least eighteen cases of ataxia. After the present—third—generation is completely studied, we have outlined a plan whereby the members of the succeeding, or fourth, generation will each be heard from at least once a year, so that it is possible we will eventually be able to record further details in the transmission of the disease together with the complete genealogy of the family.

REFERENCES CITED

1. Gordon Holmes, Albutt, and Rolleston: System of Medicine, Macmillan Company, 1910.
2. Schoenborn: Neurol. Centralbl., 1901, 20, 10.
3. Sanger Brown: Brain, 1892.
4. Bing: Deutsches Arch. f. Klin. Medecin, 1905, 83, 199.
5. Jendrassik: Deutsch. Zeit. f. Nervenheilkunde, 1902, 22, 444.
6. Jendrassik: Deutsch. Arch. f. Klin. Med., 1898, 61.
7. Farnell: Arch. Ped. 1916, 38, 48.
8. Menzel: Arch. f. Psych. 1897, 22, 276.

Official figures released by the United State Department of Commerce show a slight decrease in the death rate of mothers from childbirth for 1925 (6.5 per 1000); 6.4 in 1924; 6.7, 1921.

California mothers were lost from all puerperal causes at the rate of six per 1000 births in 1925; 5.9, 1924; and 6.8 in 1921. Deaths from what the statisticians call "puerperal septicemia" for the United States were 2.4 per 1000 births, 1925, which is about what the figures have been for five years. California mothers placed in this "deaths from puerperal septicemia" class were 2.3 per 1000 births for 1925, against 2.0 for 1924. Expressed another way, approximately one mother out of every 166 died of conditions incident to childbirth (presumably at term); in one of each 500, puerperal septicemia is given as the cause of death.

CLINICAL NOTES, CASE REPORTS AND NEW INSTRUMENTS

CLINICAL THERMOMETER TIP IN BRONCHUS

By WALLACE BRUCE SMITH, M. D.

(From the Department of Otolaryngology, University of California Hospital)

The following case of foreign body in the bronchus is interesting from several aspects: its accidental discovery; its location in one of the very small bronchi, the x-ray showing it below the dome of the diaphragm; the patient's unusual operative history; and the manner of its acquisition, as it was either bitten or broken off and aspirated. The unreliability of the patient's statements make it impossible to determine when the accident occurred. Her experiences in several different hospitals make it impossible to check back with the nurses to discover the incident of the bitten or broken thermometer, or indeed that the accident did not occur in the patient's home.

Widow, 24 years, American. Admitted to hospital June 8, 1926.

Previous entries:

1. 11-30-25. External strabismus, pyelitis.
2. 2-8-26. Pelvic complaint.

Past operative procedures:

1. Appendectomy, Aet. 14.
2. Tonsillectomy, Aet. 14.
3. Suspension and puncture of ovarian cyst, Aet. 19.
4. Right salpingo-oophrectomy, Aet. 21.
5. Cholecystectomy, Aet. 23.
6. Correction of external strabismus, Aet. 24.
7. Panhysterectomy and left salpingo-oophrectomy, Aet. 24.

May 26, 1926—X-ray of chest. "There is a foreign body in the right lower lung field." (This was found during the routine examination, and not found as the

result of complaint by the patient nor as the result of any physical findings.)

May 27, 1926—X-ray (G. I. series). "In the right lower lung field is a shadow of metallic density about 3 cm. in length."

C. C.—"Foreign body in lung." Afternoon temperature. Pain in midline above umbilicus after eating.

P. I.—Pain in abdomen one-half to one hour after eating. Relieved by soda or food. Dry cough during the last two months. Occasional itching sensation at the right lung base accompanying respiration. Afternoon temperature of 99 to 100 degrees F. since February, 1926.

P. E.—Chest—Expansion equal and symmetrical. Fremitus, normal. Resonance, good. Diaphragmatic excursion, 3.2 cm. on both sides, but is 2 cm. higher on the right side. Breath sounds are vesicular throughout. Whispered and spoken voice, well within the limits of normal. No rales heard.

June 11, 1926—X-ray of chest (stereo.). "The chest is negative except for a foreign body which lies in the posterior portion of the right lower lung field in the same position as when seen on May 26, 1926."

June 14, 1926—Hospital course: Patient is complaining of "night sweats."

June 19, 1926—Complaint of "night sweats" not verified by the nurses. Patient was apprehended wilfully falsifying her temperature by placing the thermometer against a hot water bag. Patient is subject to changing complaints.

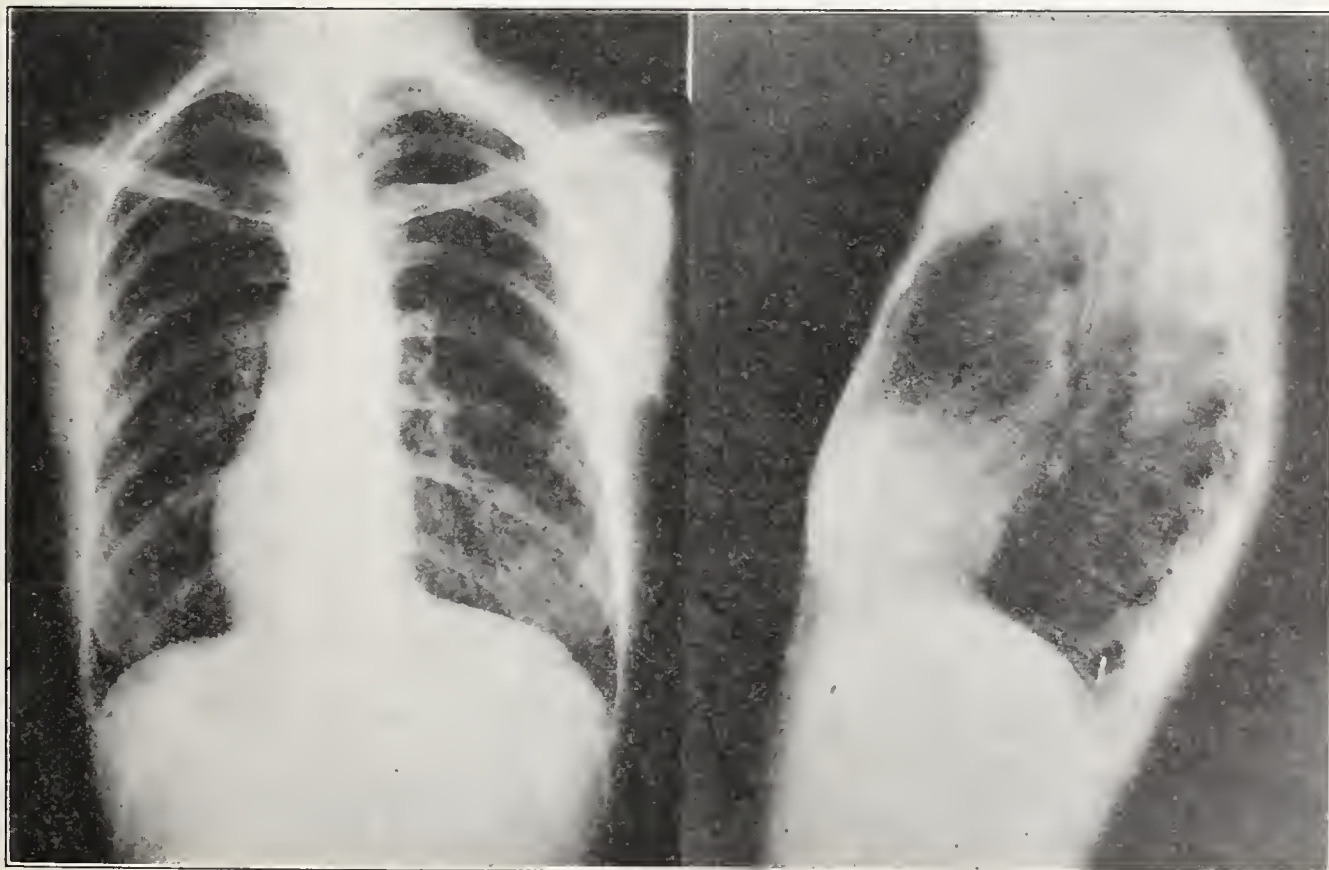
June 24, 1926—Morphin sulphate, gr. $\frac{1}{4}$ and scopolamin, grs. $\frac{1}{100}$ (H). To surgery one hour later. Larynx cocaineized. Patient put in left lateral recumbent position. No. 2 Bruning's bronchoscope used. Foreign body visualized in a tertiary bronchus and removed. It proved to be the mercury bulb of an ordinary thermometer.

June 26, 1926—Patient improved. Some pain in the right chest.

June 29, 1926—Discharged.

SUMMARY

1. The foreign body was accidentally found during the routine x-ray examination of the chest.
2. The presence of the foreign body caused no un-



toward symptoms which might attract attention to its presence.

3. Is definitely known that the foreign body resided in the bronchus for thirty days (May 26 to June 24).

4. There was no inflammatory reaction about the foreign body.

5. The patient denied all knowledge of time or place in regard to the aspiration of the thermometer tip.

THE SWALLOWING OF A FULL-SIZED TOOTHBRUSH

REPORT OF A CASE FROM THE LOS ANGELES
GENERAL HOSPITAL

By CLARENCE A. JOHNSON *

This case is reported because of the unusual accident. On June 14, 1926, Mr. A. F., 49 years, entered the Los Angeles General Hospital with a letter from a police surgeon relating that "the bearer swallowed a toothbrush, and being unable to obtain the proper equipment for its removal, I am sending the man to you."

The patient gave a history of having swallowed a toothbrush a few hours before, stating that while he was scrubbing his "tonsils" with the toothbrush, it slipped from his grasp and was swallowed. According to the patient, "several doctors attempted to remove this foreign body but were unable to do so."

The patient gives a history of considerable pain in the throat and under the sternum for about three hours after this accident, after which he described an epigastric distress and burning which lasted one and one-half hours.

Fluoroscopic examination soon after his entrance to the hospital showed no obstruction in the esophagus, or the presence of a foreign body in the gastrointestinal tract.

I saw this patient about four hours after he had swallowed the toothbrush, and suggested that the esophagoscope be used, but none was obtainable at that time. I then accompanied the patient to the fluoroscopic room where I observed the barium pass through the esophagus into the stomach without any apparent obstruction.

The patient's right leg had been amputated just above the knee, and the fourth and fifth fingers of the left hand were also missing which, together with the type of patient, led me to suspect that possibly the act had wilfully been committed in order to secure hospitalization, or that he had not even swallowed a toothbrush. However, his discomfort in stomach and some dyspnea was convincing to me that there was a foreign body in the upper gastrointestinal tract.

There was nothing in the physical findings of any interest excepting a slight distress in the abdomen and some tenderness in the region of the pylorus about six hours after the swallowing of the brush.

After several consultations during the next two or three days, with suggestions from catharsis to dough, and other coarse foods, barium was administered with the hope that some of the meal might find lodgment in the meshes of the brush and thus be revealed in an x-ray picture; but at no time was there a shadow of any foreign substance.

On June 21 operation was performed, with the following report: "A midline incision slightly to the left and

above the umbilicus was made; after opening the peritoneum and packing off the intestine, the stomach was brought up and the handle of the toothbrush was readily palpable, with the bristle end fast in the pylorus. A chromic suture was purse-stringed into the stomach on its outer margin five inches from the pylorus, and a small incision made sufficient to bring the handle through, and slightly enlarged to allow the bristle end to be drawn out. After the toothbrush was removed by forceps, the purse-string was drawn and the edges inverted by a second layer of Lembert suture, and the abdomen closed without drainage."

The pathologist reported the specimen to be a toothbrush with a handle $15\frac{1}{2}$ centimeters in length. The patient made an uneventful recovery, and was discharged from the hospital on the nineteenth postoperative day.

REFERENCES

- Radiological and Clinical Report of Foreign Bodies in the Gastrointestinal Tract (Rork), *International Clinics* 4, December, 1925.
- Foreign Bodies in the Gastrointestinal Tract in Acute Appendicitis (Allardice), *British Medical Journal* 1, March 25, 1922.
- Removal of Foreign Bodies from Trachea, Bronchi, and Esophagus (Pennington), *J. M. A. Georgia* 10, January, 1921.
- Technic for Removal of Foreign Bodies under Direct Fluoroscopic Guidance (Grove), *Ann. Surgery* 73, March, 1921.
- Death Due to Swallowing of a Dental Plate (Feldman), *British Medical Journal* 2, December 17, 1919.
- Forty Foreign Bodies in Lungs, Esophagus, and Intestines (Carpenter), *Southern Medical Journal* 13, June, 1920.
- Gastrotomy on Baby for Removal of Open Safety-Pin (Bevan), *S. Clinic, Chicago* 3, June, 1919.
- Fluoroscopy and Surgery Combined for Localization and Extractions of Projectiles (Flint), *Mil. Surgeon* 40, March, 1917.
- Foreign Bodies in Stomach Removed by Operation (Brand), *British Medical Journal* 1, June 16, 1923.
- Foreign Bodies in Air Passages and Esophagus; Review of Cases in History and Literature (Patterson), *Laryngoscope* 34, October, 1924.
- Large Collection of Foreign Bodies in Stomach; Report of Case with Review of Literature (Thorek), *International Clinics* 3, September, 1924.
- Unusual Cases of Foreign Bodies in Abdomen (fork, spoon, can opener, crochet needle, and razor blade) (Walker), *Boston Medical and Surgical Journal* 192, May 14, 1925.
- Accessibility of Cardia and Distal Part of Esophagus in Gastrotomy to Remove Foreign Bodies (Mourek), *Journal American Medical Association* 85, August 29, 1925.
- Expectant Treatment of Foreign Bodies in Stomach (Moersch and Vinson), *Minn. Medical* 9, February, 1926.

ABSORPTION OF SUBCUTANEOUS FAT DEPOSITS AT SITE OF REPEATED INSULIN INJECTIONS

REPORT OF CASE

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SINCE the introduction of insulin for use in treatment of diabetes mellitus, numerous workers have reported sensitization phenomena, including urticarial wheals and indurations at the site of subcutaneous injections, serum sickness, and general anaphylactic symptoms. Williams,¹ Geyelin,² Wilder,³ Gibson and Larimer,⁴ Raynaud and La Croix,⁵ Joslin,⁶ Lawrence,⁷ and Campbell⁸ describe the

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* Roland A. Davison (Letterman General Hospital, San Francisco). M. D. Long Island College Hospital, Brooklyn, N. Y., 1914. Graduate, Army Medical School, Washington, D. C., 1920. Graduate study: Intern, Long Island College Hospital, 1913-16; research associate, Trudeau Sanatorium, N. Y., 1916; assistant resident and instructor in Internal Medicine, L. I. C. H., 1917; entered military service as Lieutenant M. C., July, 1917. Present hospital connections: Chief, Division of Gastroenterology and Metabolism, Letterman General Hospital, San Francisco. Scientific organizations: Fellow, A. M. A. Present appointments: Major, Medical Corps, U. S. Army. Practice limited to Medicine since 1919.



Patient standing

technique of insulin administrations and comment on these sensitization phenomena and their possible causation.

The reaction of the patient here reported differs from any other so far reported, and illustrates a possibility which may be encountered where there is repeated injection of insulin into a given area.

Mrs. H. C., age 37, entered the hospital March 17, 1925. Her father, who is living at 70, has diabetes. She has had no previous illness to which her diabetes could be traced. The onset of the present illness occurred three months before admission. The chief complaints were loss of ten pounds weight, fatigue, and a gradually increasing thirst. She had no abnormal food desires nor excessive appetite. She had never used starch or sugar to excess. The diagnosis of diabetes had been made ten days before her admission to the hospital.

Physical examination showed a soft cystic thyroid with slight enlargement, otherwise there was nothing remarkable and the patient's general condition was excellent. Weight, 59 kilograms; height, 165 centimeters. Urine contained 7 per cent glucose. The blood sugar on the following day was 0.307 per cent. Blood count, normal; and blood Wassermann, negative.

She was placed on a trial diet of 50 gms. carbohydrates, 65 gms. protein, and 125 gms. fat. On this diet the urine became sugar-free, but the blood sugar remained between 0.160 per cent and 0.182 per cent, therefore the administration of 5 units of insulin twice daily was instituted. The insulin was injected hypodermically in the usual manner. Sterilization of the syringe was accomplished by the use of alcohol.

The patient complained of pain, burning and itching at the site of the insulin injections at the time injected. In twenty-four to thirty hours following the injections, there appeared at the site a circular indurated area sur-

rounded by an area of erythema which gradually increased in size to a diameter of 10-12 centimeters over a period of three to four days, and then gradually subsided. Itching and burning continued during this period. The size of the local erythematous area depended in no way on the amount of insulin injected. The patient's constitutional reaction to insulin was also atypical, showing evidence of deficient absorption. She would seemingly get no effect from each of several injections, and then would show a hypoglycemic reaction at an unexpected time.

Attempts were made to determine the cause of the local phenomena. No reaction was observed to follow the subcutaneous injection of water, normal salt solution or one-half per cent Tricresol solution. Pronounced reactions occurred following the injection of 1-100, 1-50 and 1-25 dilutions of insulin. (Both Stearns and Lilly products were used.) The low protein insulin of Squibb was then tried with similar results. Attempts to desensitize the patient were unsuccessful.

She was discharged from the hospital May 30, 1925, with instructions to take a diet of 50 gms. protein, 60 gms. carbohydrates and 165 gms. fat, which she tolerated without the use of insulin. For about four months she remained very well and then began to lose tolerance.

She was readmitted to the hospital November 1, 1925, greatly dehydrated and in a precoma state. On admission the urine contained acetone and 3 per cent sugar. Blood chemistry: sugar, 0.364 per cent; carbon dioxide combining power, 9.9 volumes per cent; urea nitrogen, 0.014 per cent; total chlorides, 0.313 per cent.

Because of the seriousness of her condition the use of insulin was deemed essential to her recovery and in full knowledge of the patient's previous reaction, its use was begun. Local reactions similar to those observed during the first admission were again seen, but after a very few injections the patient's local reaction to insulin became similar to that observed in the usual case of diabetes, and no further local phenomena were observed during her period of hospitalization. The patient was freed quickly of her acidosis and then the diet was adjusted to her caloric needs. Insulin was given in doses averaging 60 units daily, one injection before each meal. U-40 insulin was used throughout.

She left the hospital January 12, 1926, in excellent condition with advice to continue the diet of 50 gms. protein, 55 gms. carbohydrates, and 155 gms. fat. On this diet she was able to carry on her usual household and social duties and increased her weight from 50 kilograms to 55 kilograms. This diet necessitated the use of three daily injections of insulin which the patient injected herself, following the directions given her.

All of the injections, however, were made into the outer aspects of both thighs, U-40 insulin being used. Injections were accompanied by slight temporary pain, but no other untoward effects until after a period of about four months, when the patient began to notice a pulling of the skin with loss of subcutaneous fat in the areas into



Patient recumbent on flat table

which she made the injections. The accompanying illustrations show the extent of local fat absorption or atrophy which has occurred. When first observed the skin appeared to be adherent to the underlying fascia, but when the patient no longer injected insulin into the areas the skin seemed to loosen and be free.

Although it is now two months since the patient was instructed to inject no more insulin into these areas, there has been no evident deposit of fat.

BIBLIOGRAPHY

1. Williams, J. R.: *Journal of Metabolic Research*, 2, 729, 1922.
2. Geyelin, H. R.: *Journal of Metabolic Research*, 2, 767, 1922.
3. Wilder, R. M.: *Journal of Metabolic Research*, 2, 701, 1922.
4. Gibson and Larimer: *Journal of the A. M. A.*, 84, 491-2, 1925.
5. Raynaud and La Croix: *Bulletin et Memo. Soc. Med. d'hopital de Paris*, 49, 831, 1925.
6. Joslin, E. P.: *Treatment of Diabetes Mellitus*, third edition, Philadelphia, 1923, 59, 63-9.
7. Lawrence, R. D.: *Lancet*, 1, 1125-6, 1925.
8. Campbell, R. W.: *Medicine*, 3, 243-9, 1924.

FATTY ATROPHY FROM INJECTIONS OF INSULIN

By STANLEY H. MENTZER AND ERNEST S. DUBRAY *

(From the Department of Surgery, University of California Medical School)

IN THE November 13, 1926, issue of the *Journal of the American Medical Association* Clifford J. Barborka reported two cases of fatty atrophy resulting from insulin injections. These were the first cases on record.

We would like to report a third case observed in the Out-Patient Clinic of the University of California Hospitals. It is our first experience of atrophy following insulin injections; however, several similar atrophies have been observed in narcotic addicts.

REPORT OF CASE

A woman, aged 54, was first seen February 7, 1925. The patient had had severe tonsillitis in childhood, acute rheumatic fever with involvement of most of her joints at the age of 20, and diphtheria at 25. An appendectomy and pan-hysterectomy had been performed at 30. A right sciatica had been intermittently present for six years and had been relieved by a body cast. The patient had known of her diabetes for six years. The blood sugar on admittance was .119 per cent and varied from .25 to .13

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Ernest S. duBray (1255 Flood Building, San Francisco). M. D. Johns Hopkins Medical School, 1914; B. A. University of Cincinnati. Previous honors: Captain A. E. F. (World War); consultant (Med.) Veterans' Bureau, 1923. Present hospital connections: Visiting physician, University of California Medical O. P. D. (Metabolic Division). Scientific organizations: American College of Physicians, Academy of Medicine of San Francisco, San Francisco County Medical Society, C. M. A., A. M. A. Practice limited to Medicine since 1919. Publications: Eleven articles, mostly on metabolic diseases, appearing since 1920 in the following journals: *Arch. Int. Med.*, *Am. J. M. Sc.*, *California and West. Med.*, *J. Lab. and Clin. Med.*



per cent in May, 1924, when she began taking insulin elsewhere. The patient was given no instructions and no warnings about the administration of hypodermic solutions.

Eight months later she returned to our clinic. Her blood sugar was .218 per cent. Fifteen units of insulin were taken hypodermically by the patient daily, and in November, 1926, she was sent to the surgical clinic complaining of a "lump" on her left thigh and depressed areas on the left thigh and left arm. A small calcified node 1 cm. in diameter was removed under local anesthesia from the left thigh, immediately cephalad to the depressed area. The pathologist stated it was a calcified cyst. The depressed area on the left thigh measured 6 by 9 cms. and on the left arm 3 by 4.5 cms. These were the sites of the hypodermic administration of insulin, and had been present for four and eight months respectively. There were no neurologic changes in the overlying skin, no deep tenderness and no muscle changes; apparently fat atrophy was the only disturbance. The skin was adherent to the underlying fascia. Sections taken from the depressed areas showed no lymphocytic foci indicative of inflammatory changes. On the other hand, sections from similar depressed areas at the hypodermic sites in narcotic patients invariably showed foci of lymphocytes and even polymorphonuclears. The latter were obviously cases of atrophy of inflammatory origin, whereas the former showed no inflammatory changes.

With unusual foresight there has been of late some special consideration given to the needs of health preservation of the elderly person, as though humankind were living to a more advanced age and were, hence, in need of such specialized medical attention. We hear much these days about the lengthening of the span of life, but, while it is true that more people live longer than formerly, the maximum years of the individual are not greater, even if a few more persons do attain to three score and ten years or so. We do not need to prepare to preserve centenarians, though it is well if we can make the later years of the many who now attain anywhere on the postmeridian side of life, happier.—*M. J. and Record.*

- BEDSIDE MEDICINE FOR BEDSIDE DOCTORS -

An open forum for brief discussions of the workaday problems of the bedside doctor. Suggestions for subjects and discussants invited. Useful extracts from letters will be published.

WHAT ARE THE ESSENTIAL INDICATIONS CAESAREAN SECTION?

The Editor: While this discussion reveals some differences of opinion, all discussants agree that too many Caesarean sections are being performed. To discuss the why's of this would lead us too far afield, but whatever they are, they need to be seriously reviewed by obstetricians with a view to reformation of procedure.

The serious after consequences of the one time popular ventral fixation of the uterus during childbearing years doubtless has ceased to be the problem it once was to obstetricians, for which we may all be thankful.

"Bedside Medicine for Bedside Doctors" entails an enormous amount of correspondence and tireless effort. This is immaterial if the discussions are valuable. The only method we have of determining this point is by communications from readers. Please send us a note or postcard telling us your opinion of these discussions, and if you believe they should be continued, suggest topics for future discussions.

Alice F. Maxwell*—Caesarean section as an obstetrical procedure has passed the test of time and occupies a definite and well-defined position. The operation, however, necessitates an invasion of the abdominal cavity, and it is subjected to the same laws or risk and mortality which follow in the wake of laparotomies in general, and which, of course, is higher than that which attends childbirth by the natural passages. If to this inherent surgical mortality is added the risk of operation on infected or potentially infected individuals, the procedure "becomes one of the most fatal in surgery" (Newell). The ease with which a section can be performed constitutes one of its disadvantages, since it leads to its abuse, for the danger to the mother in improperly selected cases is not balanced against the method as an easy exitus from an obstetrical complication. Caesarean section should be performed only in the interests of the mother and a living child, therefore a dead or toxic baby or an infected woman are contraindications for its employment.

Absolute Indication for Caesarean Section—Pelvic obstruction of such a degree that delivery of a living child per vaginam is impossible is the only absolute indication for section. Such degrees of contraction are very unusual. Moreover, statistics from large clinics indicate that 80 per cent of labors with contracted pelves are spontaneous. In the Woman's Clinic of the University of California Hospital in 5500 labors there were 4 per cent contracted pelves. Thirty-five patients were delivered by caesarean section. However, it is evident that every instance of disproportion between the fetus and the mother's pelvis must be individualized and the management must be determined by attending circumstances.

Relative Indications for Caesarean Section—Rela-

tive indications for section are varied and depend largely upon the experience and judgment of the attendant and especially upon various modifying factors such as the age of the patient, rigidity of cervix, condition of fetus and unfavorable presentations. In general, conservatism will meet the best interests of the mother in the large majority of obstetrical complications.

In the treatment of eclampsia and allied toxemias of pregnancy it has been repeatedly shown by statistics from representative institutions that eliminative measures in conjunction with morphin for the control of convulsions will be followed by less shock and danger to the mother than will surgical procedures, or accouchement forcé. In these instances the baby is usually below par, frequently profoundly toxic, and may be stillborn or survive delivery but a short period. Moreover, the operative trauma to the mother may be just enough to unfavorably influence the prognosis in the intoxication of the pregnant woman.

Hemorrhage in pregnancy, whether from placenta previa or premature separation of a normally implanted placenta, rarely demands section and, again, a large number of statistics serve to emphasize the advantages of tamponades, induction of labor, or conservatisms with delivery through the natural passage rather than surgical interference. In rare instances with concealed hemorrhage from ablatio placenta, the symptoms may be acute and the life of the mother depends upon immediate control of the bleeding. Here laparotomy is imperative even though the baby is dead. In these alarming hemorrhages, due to the infiltration of the uterine musculature by blood, the power of contractibility of the uterine musculature may be entirely lost so that, after removal of the placenta, hysterectomy may be frequently necessary to control the bleeding.

In acute respiratory disease or other generalized infections the strain upon the mother is apparent in the second stage of labor. This can always be avoided if after the cervix is effaced the labor is terminated with forceps or version. By Gwathmey anesthesia the woman can be comfortably and safely carried through the first and second stages. With such complications, it is improbable that the mother's condition will warrant a section. The above statements hold true for the treatment of pregnant women with pathological conditions of the heart.

In recent years there has been considerable discussion as to the advantages of extraperitoneal or transperitoneal section rather than the older intra-peritoneal route in women frankly or potentially infected after the "test of labor," or as the result of neglected labor. To my mind, the question hinges largely upon the relative degree of resistance of the peritoneum and the subperitoneal cellular tissue around the base of the broad ligament. Disregard-

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ing the greater technical difficulties of the extra or transperitoneal route as a method of delivery, the fact remains that we must bear in mind that the uterus undergoing involution is handicapped by an incision in its walls. In the presence of an intra-uterine infection this handicap is tremendously increased and the infection is very likely to spread to the surrounding tissues. We know that the peritoneum is able to handle, wall off, and protect the individual from a certain amount of infection; the resistance of the individual and the amount of infection are the determining factors in the outcome. In individuals exhausted by long labor or attempts at operative delivery, the low cervical or extra peritoneal section is not an ideal method of delivery because of the inevitable contamination of the cellular tissue around the incision by the spill and because of the possibility that such a cellulitis by continuity may spread to areas remote from the pelvis. In recent publications the most ardent advocates of the trans- and experitoneal routes are sounding just this warning.

W. O. Henry *—Let me say, to begin with, that I think this a most timely and practical question to occupy our thought and attention, for while caesarean section is a well-recognized and proper procedure when required, still I think it is done many times when simple means would have given equally good or better results, and I am sure it is done too often by the inexperienced to the detriment of mother or child or both.

About the only essential indications for caesarean section are pelvic obstruction to the delivery of a living child; or a dead mother with a living child undelivered, as I know of at least one case of the latter variety when the obstetrician by quick action saved a living child which grew to a fine girlhood. But it cannot be too strongly emphasized that this is a major operation in a living woman and should not be lightly undertaken, nor done until all minor procedures have been shown to be inefficient.

E. T. Rulison *—The essential indications for caesarean section may be enumerated as follows:

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* **Elbert Theodore Rulison** (California State Life Building, Sacramento, California). M. D. Cornell University, 1909; B. S. Union College, Schenectady, New York, 1904. **Graduate study:** Intern Surgery and Pathology, Roosevelt Hospital, New York City, 1909-11; intern Sloane Maternity, New York City, 1911. **Practice limited to Surgery and Obstetrics since 1925.** **Hospital connections:** Treasurer and member Board of Directors, and chairman Executive Committee of the General Staff of the Sutter Hospital, Sacramento. **Previous honors and services:** Sigma XI Union College, 1904; instructor in Surgery, College Physicians and Surgeons, Columbia University; assistant attending surgeon Presbyterian Hospital, New York City, 1917-18. **Scientific organizations:** Sacramento County Society for Medical Improvement, California Academy of Medicine, California Medical Association, and A. M. A. **Publications:** "Drainage in Appendicitis," Ann. Surg., 1919; "A New Method of Demonstrating the Capsules of Bacteria," Path. Lab. of Roosevelt Hospital; "The Clinical Application of the Carrel-Dakin Method to Cases of Acute Appendicitis Requiring Drainage," Surg. Gynec. and Obst., 1920; "The Study of the Parathyroid Glands in Man," Anat. Record III, 1909.

1. Previous caesarean section.
2. Contracted pelvis. With average-sized fetus it is justifiable to proceed without the test of labor if true conjugate is less than 8.5 cm. (simple flat pelvis) 9 cm. in justo-minor or if transverse diameter of outlet is less than 7 cm.
3. Placenta praevia only in primiparas with long, rigid cervixes and excessive hemorrhage.
4. Certain cases of ablatio placenta.
5. Exhaustion in elderly primipara with rigid os, uterine inertia, and oversized fetus.
6. Obstructing tumors and congenital malformations of uterus.
7. Carcinoma of the cervix.
8. Vagino or ventrofixation of uterus.
9. Threatened rupture of uterus.
10. Mother dying or dead.
11. Certain abnormal positions of fetus, e. g., persistent mentoposterior or persistent shoulder.
12. Oversized monsters.

I have never recommended caesareans in any of the following conditions, although one may imagine very rare instances in which it might seem justifiable to do so:

1. Toxemia of pregnancy.
2. Generalized infection, e. g., influenza, typhoid, or pneumonia.
3. Cardiac lesion.

It is very well to point out the danger of any type of caesarean in the infected mother with viable fetus, but the fact remains that these cases occur repeatedly and must be dealt with in a manner that gives the baby a fair chance. To my mind, the low cervical, transperitoneal operation appears to be the best procedure.

Edith S. Brownsill *—If we give unqualified credence to statistics compiled grossly from the results of caesarean section, our conclusions may be erroneous.

In tabulating the fatalities of all obstetrical procedures, are not all those cases included that are brought into the hospitals in an almost moribund condition as a result of ignorance or neglect of those in charge of the cases? These unselected statistics may influence the judgment in the management of doubtful cases.

I wish to speak of caesarean section in relation to the toxemia of pregnancy. The popularity which the eliminative treatment has attained is not justifiable as far as the interests of the baby is concerned. We frequently eliminate the baby by prolonging the eliminative procedure. During the progress, if the baby's heart shows signs of grave distress from the toxemia, I think caesarean section should be resorted to at once. If the patient's condition should grow rapidly worse the strain of a labor should not

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be imposed upon her. Caesarean section would put an end to further development of toxins, resulting in conservation of the mother's tissues and the exemption of the baby from further toxemia.

Given a pelvis that is not hopelessly deformed or occluded by tumors, accurate diagnosis and careful guidance will, in the majority of cases, allow of such procedure as to obviate the necessity of caesarean section. It is amazing what can be accomplished by a trial of labor in many cases where the pelvic measurements would seem prohibitive.

As has been emphasized many times, and justly so, caesarean section should be in the hands of a competent specialist if the future health of the mother as well as the immediate safety is to be ensured.

Walter F. Wiese *—I do not know of any procedure in the practice of obstetrics which is of more value, and also, no procedure which is more abused than caesarean section. The critics wonder and question, "Why so many caesarean sections?" This, of course, brings to the mind of the physician the question, "What are the essential indications for caesarean section?"

The Absolute Indication for Caesarean Section—Any gross disproportionment between the passage and the passenger to the extent that it becomes an impossibility to deliver a living fetus through the vaginal route is the only absolute indication. Such conditions naturally are rare, and if the caesarean sections done were for this indication alone we would find few being done today.

Relative Indication for Caesarean Section—It is in this group of indications that we are all most prone to err, and we must be cautious, guarded and openminded in passing judgment on this group of indications. Each case deserves individual consideration from several points of view, such as age of the patient, the number and kind of examinations made (whether rectal or vaginal), the desire of a living child on the part of the parents, the general condition of the mother (whether she is exhausted or in shock), the condition and presentation of the fetus, and whether the patient is a primipara or multipara.

There is no question but that a dead fetus would be an absolute contraindication in this group.

A relatively contracted pelvis alone, or a relatively contracted pelvis with other complications, such as vaginal scars, healed fistulae, rigid cervix, atresia of cervix or vagina, large baby, fibroids of uterus, ovarian or other pelvic tumors, malignancies of pelvic organs, and prolapsed cord with living fetus and a malposition may all be considered as indications.

A previous caesarean section is without question an indication, and this brings up the question of sterilization of the patient. I cannot think of a single instance when sterilization is indicated with the first caesarean.

The toxemias of pregnancy are, I think, best taken care of in a conservative manner, but the obstetrician must remember that a living child is

the most wonderful gift to a mother, and the question of sacrificing the child must be carefully considered. The same considerations hold true with regard to placenta praevia. Conservatism is good practice, but the baby is often sacrificed when a caesarean section would give a good result for both mother and baby.

In ablatio-placenta we usually find a dead baby, and the surgical risk of a caesarean is too great. There may be a very few instances where a caesarean followed by a hysterectomy might be indicated to control the bleeding.

In pulmonary disease without other complications, I do not think a caesarean section indicated.

In heart complications the obstetrician must be guided by the patient's general condition as well as the individual characteristics of this particular labor. Usually the conservative method of delivery through the normal passage is the best method.

Let me emphasize the moral obligation of the obstetrician to his patient in these considerations of relative indications, and I am sure the critics will have no cause for alarm.

W. J. Blevins *—This subject is of extreme interest to me in that we have been going through a reactionary period at the Woodland Clinic in regard to caesarean section.

Until rather recently any patient whose blood pressure became high, whose urine showed considerable albumin, who had edema and, in general, presented the picture of status eclampticus, was subjected to rest in bed and dietary régime, and if after twenty-four or forty-eight hours, as the case warranted, there was no improvement and convulsions still seemed imminent caesarean section was done.

In accumulating our yearly statistics we noted a high percentage of this operation as compared with other institutions handling an equal volume of work. It is true that in our entire series we lost but one patient and one child from toxemia, this patient entering moribund and dying within two hours after entrance to the hospital, the baby having been dead for some time.

However, hysterotomy is at all times a major operation and has a certain mortality and morbidity attached to it. Hence we desired to limit this operation as much as possible.

Since the adoption of more conservative methods we have reduced our operative interference in toxemia to almost nil, it being the last step in our régime.

It is true that there are other indications for caesarean section, such as disproportion between size of the child and the size of the pelvis, placenta praevia, uterine tumors, threatened rupture, dead mother and certain abnormal positions of the fetus. These, along with other conditions which may be seen from time to time, must be handled according to the judgment of the obstetrician, who must use

* **Walter F. Wiese** (525 Rowell Building, Fresno, California). M. D. University of Illinois, 1915. Practice: General. Hospital connections: Burnett Sanitarium, Fresno, California. Scientific organizations: Fresno County Medical Society, California Medical Association, A. M. A.

* **William J. Blevins** (Woodland, California). M. D. Barnes Medical College, Missouri, 1898. Graduate study: New York Postgraduate School, 1912. Previous honors: Lieutenant, senior grade, U. S. Navy, 1918-19; Practice: General until 1920. Present hospital connections: Obstetrician, Woodland Clinic, Woodland, California. Scientific organizations: California Medical Association and American Medical Association. Practice limited to Obstetrics since 1923.

that procedure which seems to promise the best results for mother and child.

We have a strict ruling that no caesarean section can be performed on any patient without consultation by at least two staff members, and I believe that if this ruling were more general we would find the necessity of caesarean section not as great as statistics would indicate.

However, it is an operation which, if performed by a competent surgeon, carries with it little risk and may relieve an extremely dangerous condition.

Edgar Brigham*—*Absolute Indications for Caesarean Section*—The absolute indications for caesarean section such as extremely contracted pelvis, either inlet or outlet, or both; tumors blocking the birth canal; hydrocephalus, and monsters, are met without any great difficulty or concern on the part of the obstetrician. If he has been careful in taking the measurements and making examinations he is prepared to do this operation at the proper time.

Relative Indications for Caesarean Section—It is the borderline case that requires the best of judgment in determining what procedure is best for mother and child. In abnormal positions such as shoulder presentation, mento-posterior positions, and occipito-posterior with a conjugata vera of 8.5 cm. or an external conjugate of 16 cm. the safest procedure is caesarean section in the first stage of labor. The obstetrician may, however, apply the test of labor in selected cases in this group.

1. He may induce premature labor.
2. Young primipara with a soft cervix and with a pelvis which promises to yield under the strain of labor.
3. The fetal head is small and yielding.

The majority of patients in this selected class will be delivered via pars naturales, either unaided or assisted by forceps.

Emergency Indications for Caesarean Section—I want to speak of a class of indications which are not essential, but which to my mind are indications in emergencies which arise in the obstetrics of the general practitioner. Occasionally we are called to see a patient for the first time who is possibly in the sixth to ninth month of pregnancy and having a convulsion. We examine the urine and find we have a severe case of eclampsia. What shall be done? I believe that if there is still a rigid cervix and the mother's condition will permit, caesarean section offers the speediest and surest relief. Caesarean done under such circumstances does not call for caesarean at the next delivery. I have delivered one woman twice normally after a caesarean by another physician, and another, once, after a previous caesarean by myself. It is important in these cases, however, to control the pains and if necessary use forceps to prevent too great a strain on the uterus.

Occasionally it is necessary to disregard some of the contraindications, such as repeated examinations, previous use of forceps, and even active infection.

In these cases, which fortunately are rare, I believe there is much less danger of infection extending to the peritoneum if the tubes are ligated.

C. B. Cortright*—As is noted in textbooks, there are two indications for performing a caesarean section, namely, absolute and relative. Tersely said, "the indication for a section is a marked disproportion between the size and *shape* of the passenger and the size and *shape* of the passage."

There are no measurements that can absolutely guide us. For instance, we cannot expect to deliver a ten-pound fetus through a relatively small pelvis with a true conjugate diameter of $7\frac{1}{2}$ cm. or less, nor would we be justified in doing a version or a craniotomy on a supposedly healthy viable fetus. Of course one is supposed to take into consideration a former bad obstetrical history, all of the measurements of the pelvis and the fetus, the number of vaginal examinations, and the general condition of both the patient and fetus before deciding to perform a caesarean.

A consultation should be had, and if caesarean is decided upon only a properly equipped operating room is the place to perform it.

Another classification might be, as follows:

Uterine—Rigid cervix, particularly in elderly primipara, originally so or, following a severe repair or amputation of the cervix, malignancy or a tumor in the pelvis that cannot be displaced.

Pelvic—Any greatly misshapen pelvis such as the kyphotic, flat, osteomalacic, Robert's or Naegele's, coxalgic or any bony or cartilaginous growth of large size.

Fetal—Spina bifida, monsters, hydrocephalics of moderate size (if too large do a craniotomy), markedly overweight fetus.

General—Placenta praevia or separation of placenta in a rigid cervix, advanced tuberculosis, or cardiac incompetency with little or no compensation. Toxemic cases, every patient is a law unto herself.

***C. B. Cortright** (2287 Telegraph Avenue, Berkeley, California). M. D. Columbia Univ. Coll. Physicians and Surgeons, 1902. Graduate study: New York Lying-In, Norwegian Hospital and Saint John's Hospital (both of Brooklyn, N. Y.). Scientific organizations: Alameda County Medical Society, C. M. A., A. M. A. Practice limited to Obstetrics since 1915.

It is possibly worth while simply to announce that knowledge of the psychology of sex is getting yearly on a firmer foundation and to warn against the one-sided and propagandistic statements of self-assumed "authorities" who, with no appreciation of medical relationships, and with no medical training or experience, present a partial and misleading picture of sex development and relationships. All human life, physical and emotional and intellectual, positively cannot be reduced to terms of sex. The original ideas of Freud are not acceptable today to the great body of competent medical psychologists. The danger in sex education lies chiefly in separating sex off into a separate taboo compartment when as a matter of fact it is a normal part, and only a part, of life. It is distinctly *not* the determining and chief developmental influence in infancy and childhood. The child learns more by imitation than by any other means. Too many exponents of sex propaganda, so called, are merely satisfying a morbid curiosity of their own or expressing an abnormal sex life of their own. Sanity and plain horse sense must guide us here, together with the technical experience and studies of medical specialists of broad training and broad sympathies.—Alfred C. Reed, Editor *Gyrotopico*, January 12, 1927.

***Edgar Brigham** (Dinuba, California). M. D. College of Medical Evangelists, 1917. Practice: General.

EDITORIALS

THE 1927 C. M. A. ANNUAL MEETING

Elsewhere in this issue may be found an announcement by the Local Committee of Arrangements pertaining to our Annual Meeting at the Los Angeles Biltmore, Monday to Thursday, April 25-28.

With a number of nationally known physicians who will address general sessions and the additional splendid programs being arranged for our own speakers, the meeting promises to be particularly successful and the largest in attendance in the history of the Association.

Arrangements for the social program will be in keeping with Los Angeles' well-earned reputation for hospitality.

WHO ARE THE INDIGENT

According to California law as it is being interpreted, a patient is "indigent" not only when he is too poor to pay anything, but even when he can pay all his costs of sickness, *except a doctor's fee*. The doctor not only donates his services freely to the county or municipal institution, even when the county is reimbursed for part or all the other costs of service to the patient, but the doctor is "not permitted" to receive even a gratuity from the grateful patient who may still have some self-respect he wishes to retain. Free service to the deserving poor always has been accepted by doctors as a duty, if not a privilege—and rightly so. But under our present scheme of things he is not rendering charity to the poor, *but he is rendering it to government*, which is responsible under its own laws to give this service. Nor is this all; doctors not only render charity service to county governments—millions of dollars worth of it annually in California alone—but they pay their share of taxes and contributions to organizations who are required by law or voluntarily assume the responsibility for the care of the indigent sick and who proudly claim credit for what they are doing for the poor. The only credit the doctor gets is a guarded compliment carefully buried in an annual report that no one reads; but more often he gets drastic criticism, often in the public press, or even a malpractice suit for his alleged incompetence or dereliction of duty. This in spite of the fact that, of all those engaged in serving the sick in government hospitals, he is *the only one who is not paid*.

It is one thing—and a highly praiseworthy one—for the doctor to serve indigent clients as he does others in a direct sympathetic manner; and it is quite another to serve a government free, that it may find other uses for the taxes it collects from doctors, among others, to discharge this very obligation.

California has traveled far and is going ahead with speed on this dangerous road that is leading to an obvious destination. Official reports show that in one hospital of one county last year the doctors gave without cost 30,000 hours of their services to some 30,000 different patients, spending nearly one-

half million patient-days in the hospital, while the county collected, when it could, as it is permitted to do by the Pauper Act, \$3.50 a day from its bed patients and 50 cents a visit from the ambulatory sick.

Another interesting feature of this medical charity rendered by the doctors to a rich county government is shown in the method of handling the many county and city employees who are perforce beneficiaries under the industrial accident law of the state. These are served *free*, although state law provides payment according to a legal fee schedule for the doctor who renders the service. It is not revealed whether the many thousands of dollars thus contributed by doctors benefits the county as a "self-insurer" or goes to swell the net earnings of several million dollars annually by the state insurance company alone.

It is true that a comparatively small percentage of the patient's fees in this hospital or in other county hospitals that employ similar methods are collected, for reasons obvious to those who know human nature. But the educational value of the method in encouraging government dependency, making thriftlessness honorable, and increasing possible political power where it may be wanted has possibilities.

It would be difficult to take issue with a properly safeguarded policy which insists that every patient who can do so purchase needed service from private sources at such rates as he can secure; and that those who cannot afford to pay the fair costs of care thus amply provided, be required to pay such part of the cost of service in government institutions as they can afford—PROVIDED, a fair proportion of such income goes to the doctor for his service. All of the other thousand or more persons who take part in this service are paid, as they should be. But why discriminate against the doctor, and tax him, in addition, to help pay the other employees' salaries as well as to support other government clinics available "free" alike to "rich man, poor man, beggar man, thief."

However, history is convincing that the policy of government institutions, designed to serve the poor, by making even small charges to those who will pay them, leads inevitably to one of two logical conclusions: it falls by its own weight—often with a crash of political and economic importance—or it leads to a government monopoly of a kind particularly repugnant to most thinking people, including those served.

This editorial is a discussion of principles and policies and is not intended as a reflection on the many able and conscientious leaders who are confronted with an astoundingly complicated problem of the first magnitude, involving many angles, in directing the welfare of the more than two million citizens of the one county from which we have the last records.

THE PROPOSED GOVERNMENT MONOPOLY OF INDUSTRIAL MEDICAL PRACTICE

The recommendation of the California Industrial Accident Commission that the legislature give to this government bureau through its state insurance

company a complete monopoly of industrial medical practice is the most far-reaching and boldest bid for state medicine that has occurred in our country since the initiative petition for compulsory health insurance was so badly beaten by the voters of California some years ago.

The only surprise to those who have followed the additions, amendments and rulings employed in the expansion of this law since its enactment some years ago is in the boldness and baldness which characterizes this latest move and the naive arguments put forth in its support.

The principle of industrial accident insurance is a sound and humanitarian one that needs to be sanely developed. It is now being handled by one state insurance company, some thirty private insurance companies, and scores of self-insurers. Upon this competitive basis the state insurance company (state fund) claims to be doing a majority of the business and at the same time refunding to its policyholders an average of 30 per cent of premiums paid. These refunds, it is stated, have aggregated over \$11,000,000 during the few years the state has been active in the insurance business.

A substantial amount of this profit has been made by paying a ridiculous minimum for physicians' services and by grinding down payments for hospital service far below the cost of rendering it, so that some of the hospital's service to the assured must be made up by private or organized philanthropy.

Even the greatest of our trusts would be feeling pretty good over such prosperity, but the state bureau wants to go a step further and forbid all competition by private business. Why?

We suspect that the reasons, or many of them, including some likely to prove embarrassing to politicians, may come out in the intensive fight on this politico-socialistic move sure to take place in the current session of the legislature.

The greatest opposition to the present law as it is administered is, what in effect amounts to taking from the patient the right of choice as to who shall serve him. It is a well-known fact that by means unnecessary to discuss at this time, a group of laymen allocate an amazingly large share of the medical work to a remarkably few doctors, often to the dissatisfaction of both the patient and the doctor of his choice.

Under present competitive conditions it so happens that each insurance company, including that of the state, has its own group of doctors and these many groups insure an allocation of the medical work more widely and, therefore, more pleasing to patients and doctors than would occur under any monopoly, state or private.

The very heart of all such insurance is a medical one; a problem of the first magnitude which affects over a million citizens of the state. The officers of the state insurance company and the industrial accident commission are appointees of the governor, liable to selection and change practically at his pleasure. Although primarily a medical question, no educated physician is, or ever has been one of these appointees. It is true that the commission engages the services of a highly respected medical director, but he is not a member of the commission. So, too,

the state insurance company engages one or more doctors, but the best that these may do is to make recommendations. So, as an actuality, the control of a great medical problem, including to an amazing extent the selection of the doctor an assured may have, is largely vested in political appointees of government bureaus. The story of how this authority works out may be told at the proper time, but to further governmentalize this service by eliminating all competition might very well lead to conditions calculated to jeopardize the whole worthy scheme of industrial insurance.

That government monopoly of accident insurance is only a resting station to further ends seems apparent from a glance at trends in the field. Since the original law was passed, time after time whole groups of additional diseases have been brought under its provisions; sometimes a hundred or more new ailments have been added by a single decision, until as the law now stands it covers not only accidents but a large percentage of the infirmities of mankind. More undoubtedly will be added. When we get a little further along this road and then give a state government bureau a monopoly in enforcing the law, it would only require one more easy step to have complete compulsory state health insurance for California; more universal and more completely under political control than exists in any other country.

Since the above was written, C. W. Fellows, able insurance executive, for nine years director of the State Insurance Company (San Francisco *Chronicle*, December 27), in discussing the attempt of the State Fund to give to itself a monopoly of industrial accident insurance by legislative enactment says:

An analysis of the situation proves conclusively that there is no occasion whatever for the establishment of a bureaucratic monopoly under our compensation law. At present employers have a choice of insurance carrier types which include state insurance, interinsurance, mutual insurance, nonparticipating stock insurance and participating stock insurance, and there is no agitation on the part of employers, about 70 per cent of whom carry private insurance, for a monopolistic state insurance fund. Some, at least, of the state fund's competitors are today providing a far speedier, more intelligent and more satisfactory service to both employers and employees. In addition, injured workmen under these private company policies are better cared for and are receiving more prompt payment of their weekly compensation than are those covered by state insurance.

During my nine years' service with the State Compensation Insurance Fund I consistently held to the view that the elimination of competition could have no other result than to bring about the usual attitude of bureaucracies—laxity, arrogance and inefficiency, to say nothing of the enhanced facilities for political use of the organization. My experience constantly impressed upon me the fact that only through the sharpest competition could the service of such an institution be maintained at even a fair standard of efficiency.

The latest actuarial examination of the fund shows that, in order to successfully compete, it is paying dividends in excess of its earnings, necessitating the depletion of the surplus accumulated under the previous management. The report covering this is on file with the State Insurance Commissioner, but that feature of the report, for obvious reasons, has been given no publicity by the State Fund management.

During my administration of the fund I was con-

tinually importuned by politicians to make room in the organization for their friends, and pressure was brought to bear upon me to take back employees discharged for rank inefficiency. At one time an attempt was made to divert the moneys of the fund to highway finance. If I had not stood stoutly against this, the action would have reduced the surplus of the fund approximately half a million dollars. Should the need for insurance brains and competitive instincts be removed by the legislative creation of a bureaucratic monopoly, the greater opportunity for sinecures and the paying of political debts is very apparent indeed.

Governor C. C. Young commented on this question in a letter dated August 16, 1926, in the following language:

"In my own business, for a number of years, my firm wrote all our compensation insurance with private companies, and with satisfactory results. From my present knowledge of the situation, I do not see any necessity for a change in the existing law as regards this matter."

It is one thing to make accident and health insurance compulsory for a third of the population of a great state and in effect require the beneficiaries to accept the doctors and hospitals designated by a score or more competing insurance companies and many self-insurers; but it is something else to reduce this enormous medical problem to a government monopoly, with the right to fix premiums and force a million assured to accept this service of an amazingly small group of doctors, selected for them by nonmedical appointees of a government bureau and paid the inadequate fees that have characterized this medical price-fixing bureau since its inception.

ORGANOTROPIC VERSUS ETIOTROPIC ACTION IN THERAPEUTICS

The first cardinal requirement of rational treatment is removal of the cause, and sometimes this is simple enough, but more commonly it is the most difficult, if not impossible, task. The latter is true even of conditions whose etiology is understood. The situation would appear more chaotic with those whose etiology is unknown, yet it is in many diseases of unknown etiology that certain measures demonstrate most satisfactory therapeutic results. This appears to be true of the general group of allergic conditions. While the mechanism of the therapeutic responses in these conditions is not yet understood, the results already obtained point the way to future studies. These, it is hoped, will be useful not only for an understanding of the so-called etiotropic and specific, but also of the organotropic, humoral and nonspecific agents. It is the latter group that merits extended consideration, for their usage in therapeutics has not always appeared rational, possibly because we have been too greatly impressed with "specific" agents. The older alterative and general tonic drugs fall into the category of the nonspecific and organotropic agents.

A few examples of demonstrated indirect and organotropic actions will make it clear that specificity is no longer the *sine qua non* of therapy, nor that direct action is the only worthy one. Dale showed long ago that the pressor action of nicotine, a specific ganglionic poison, was only partly due to ganglionic stimulation. The chief part was due to an increased output of epinephrine from the adrenals caused by the nicotine, for the typical rise of blood

pressure was prevented in adrenalectomized animals. Tainter has shown that gross edema of the head can be prevented by nontoxic doses of strychnine, nicotine and some other drugs, providing the adrenals are intact, the preventive effects being due to increased epinephrine output from an action of these drugs on the adrenal glands. As the result of such indirect actions of strychnine, really actions of epinephrine, several investigators have demonstrated a general stimulation of the sympathetic nervous system. It is interesting to note that such stimulations are better sustained than from the injections of epinephrine itself. Proceeding upon the basis of such results, the tonifying action long attributed to strychnine may not be so irrational as it once appeared on classical pharmacological grounds. A tonifying action may be easily visualized from the increased epinephrine on the circulation, the maintenance of vascular tonus, the increased basal metabolism, the diminished muscular fatigue—phenomena that have all been demonstrated with, and are well-known actions of, epinephrine itself. The contributory benefit from an improved circulation must in itself be an improvement of considerable moment for functions in general. All these rather than the bitter stomachic effects, which are perhaps largely psychic, may be the basis of strychnine therapy, an altogether indirect and organotropic action, and not at all connected with the conventional increased reflex excitability or convulsant action of the drug. While the indirect actions of strychnine have been demonstrated with rather large therapeutic doses, it is reasonable to suppose that some part of the action is occurring with ordinary therapeutic doses. The physiological methods of measuring the epinephrine output, though delicate enough when compared with other methods, are nevertheless gross and crude when compared with the scarcely measurable outputs in virtue of scarcely measurable natural stimuli going on unconsciously in all of us. The time may come when such minute and apparently insignificant quantities of epinephrine and other constituents will be measured. Then perhaps they will no longer be regarded as insignificant.

Moreover, it need not be an increased output of epinephrine that is the basis of the alterative and stimulant actions of therapeutic agents. Outputs of other secretions, to mention only the thyroid and pituitary, have not yet been extensively tested in this connection, although in the case of pituitary it seems well established in lower species that pituitary can yield constituents whose presence in the circulation increase capillary tonus. The recent work of Geiling and Campbell shows that the circulatory actions of pituitary extract are mediated through altered states of the tissues. The excited state of bronchial muscle determines the usefulness of epinephrine and ephedrine as correctives of asthma. Marine has shown that the basal metabolism is changed by administering adrenal cortex which acts through the thyroid gland. Insulin, no doubt, too, exerts its action through the tissues, perhaps through the skeletal muscles and not directly through the blood sugar changes, though the latter are the main index of its effects. The recent results of Collip with para-

thyroid extract indicate that this therapeutic agent mediates its benefit through calcium mobilization. The list of agents of this type is increasing and the whole field of therapeutics offers new and alluring prospects. Adequate exploration of this field may ultimately reveal that other drugs exert their benefits through the medium of tissues, glands, organs, etc. This attractive viewpoint has been suggested by Dale as the probable mechanism of the beneficial action of most chemotherapeutic agents, including quinine in malaria, arsphenamine in syphilis, etc., for these drugs are notoriously inefficient on the parasites of these diseases *in vitro*; that is, they are probably not specific, for they do not act directly on the infecting organisms.

In seeking to explain more fully and to determine the basis of therapeutic actions, and thus to fill many gaps in our knowledge, it will require methods as yet imperfectly developed, and at present difficult of application in biology. The ordinary methods of pharmacology probably will not suffice. Various physical and chemical changes in the tissues, not easily recognizable or demonstrable, nevertheless must be given attention, for in these indirect effects on the organism with its multiple factors may reside the hitherto unrecognized explanations of drug actions. It is possible that therapeutic improvements may be elaborated as the result of such fundamental studies. In this category may indeed belong the recognized merits of malarial infection and of proteins in the therapy of neurosyphilis, and of other older practices and measures. From this it follows that therapeutic agents need not be etiotropic, nor even specific, but, on the contrary, much good, or even more, may be expected from the organotropic and humoral varieties. The possibilities of the latter appear wider and greater; and they are all the more alluring in view of the conspicuous failures of the alleged "specific" dyes, and of the continued effort to improve on and seek substitutes for yet more "specific" antisyphilitic remedies.

Twenty-two thousand syphilitics were reported (by number, as required by law) to the California Board of Health during the last two years. A comparison of these figures with Ophüls' report (Stanford University Press) of the findings in 3000 necropsies gives food for serious reflection on the effectiveness of another of our many laws. No one can make even an intelligent guess as to the number of syphilitics nor of the ravages of this "king of diseases." Certainly not more than 5 per cent of them are being reported as required by law in this or any other state. This, after many years of intensive, expensive effort seems to signify that these laws and procedures need further study. We know that thousands of infants are destroyed by syphilis before they are born, other thousands are sacrificed shortly after birth, or live unhappy, unhealthy lives and often become public charges. We know that syphilis is a powerful factor in producing the rapidly increasing population of our state institutions, and that all of these tangible evidences of its frightful havoc are but an obscure index to its far greater damages, of which we have no collective information, and which we are not getting and will not be able to secure.

Isn't it likely that our compulsory notification law or, more correctly speaking, its implication as fixed in the minds of most people, violates something that is inherently resented by the average citizen, and by the majority of physicians who serve them in confidence, as unwarranted interference?

Physicians report smallpox, diphtheria and many other communicable diseases with at least a semblance of accuracy, but that they do not so report syphilis is obvious.

The law has done some good in encouraging a certain number of syphilitics, chiefly those already semidependent, to apply for treatment at public expense. Such treatment probably keeps many from drifting into complete dependency and no doubt leads to the cure of some. But the great harm of this most prevalent disease in the destruction of infants and the frightful crippling of young men and women goes on apparently but slightly affected under present methods.

Whether existing laws are proving an asset or a liability in attempts to combat syphilis is not under review; but whatever the answer, the weight of medical opinion is, that some method or methods not yet in evidence must be instituted before we move forward as we should toward the control of the most far-reaching, destructive and crippling enemy of mankind.

For some time *The Forum* magazine has been running a department of definitions of words and phrases. They got along pretty well until their readers started to define "the normal child" and "the perfect child"—then what a stew. It is interesting and amusing and promising of long delay in establishing a standard of normality which, of course, does not exist among children or other growing things.

A significant development of public health work in New York is the recent establishment of children's health consultations on a county-wide basis, under the *management of local county medical societies*; this assuring real decentralization in the work of preventing the diseases and defects of childhood.

The county medical societies are assuming the responsibility of holding these consultations in the rural districts where they are most needed, appointing the medical examiners from their own members. Some of the societies have held symposiums on the findings of the consultations, discussing ways and means of increasing their effectiveness, and laying careful plans for the follow-up. When the latter work is done an endeavor is made to get those who have been examined to go to their own physicians for treatment and corrective work. "An allotment of \$15 from federal funds for a four-hour clinic day provides the fee of the physician who makes the examinations," says *Health News*, the official publication of New York State Department of Health. Some county societies, we learn use the funds secured from this work for the promotion of other society purposes.

This is a most gratifying and encouraging movement. Its extension to the some 3000 counties would prove the first chapter in a new epoch in medical progress. What an opportunity!

We are informed that William Randolph Hearst's policies include an editorial commendatory of physicians, twice yearly in each of his papers. One such recent editorial from the Los Angeles *Examiner* says in part:

"The service that they (physicians) give is truly remarkable. They have made for themselves a human code as fine and helpful as mankind has ever known and they obey it with the devotion and self-forgetfulness of soldiers enlisted in a crusade.

"But there is something more than that even. They are engaged in a continual fight not only against the illness suffered by the individual, but against disease itself. The advance in medical science has been one of the great historic contributions of this age. In trying to find ways to banish the ills that flesh has been heir to—and succeeding in many notable instances—the medical profession is doing that which tends to its own extinction. For if the program of the doctors finally prevails, there will not be any major diseases. And that would mean fewer doctors.

"One of the noblest records of the race is the story of the medicos. It has its great dramatic chapters, as during plagues and war, and in cleaning up the fever-infested places of the earth. But the main part of the narrative is provided by the daily acts of service of these

men who have taken upon themselves an obligation that is perhaps greater in its exactions than any other known to humanity."

The statement broadcast by the Federal Children's Bureau that they "REACHED" nearly a million babies and 180,000 expectant mothers during 1926, caused editors of all classes to "reach" for their books on synonyms and it brought a grim smile to 150,000 bedside doctors who are doing their best to do a great deal more than "reach" their patients.

Some editors who understand "reach" only in the political sense are confused as to just how it applies in rendering medical care.

Glenn Frank, college president, writer of syndicated feature stories, former magazine editor, has caused quite a lot of talk by reviving again the perennial argument that doctors should serve their patients on an annual retainer basis.

One might gather from Mr. Frank's philosophy that this would constitute an innovation, when in fact it is the current method of health service among a large percentage of the world's population, and is by no means rare in our country.

It is precisely the method of all health associations, many lodges, fraternal societies, etc., and is rapidly becoming a reliance of insurance companies, industrial plants and what-not. It is the chief objective toward which government and corporation medicine is moving as fast as possible.

"What secret is the physician harboring? What is medical science planning for the race? Where are we going with the human body? Back to the models of ancient Greece, or to a new superman by eliminating disease, by exercise, by sanitation, by banishment of worry? Is disease about to be outlawed as a crime as it was in the ideal commonwealth of Erewhon? The Greeks took these questions to their God of Medicine, Aesculapius. Today, unless we refer them to God, like the Christian Scientists, we consult our family physician."

Thus the editor of *The Forum* (July, 1927), introduces an article by George E. Vincent, president of the Rockefeller Foundation, on the future of medicine. President Vincent continues: "Health is a boresome theme. The idea of normality is unexciting; it is the exceptional, the pathological, that arrests attention. Keeping fit for sport, for example," he emphasizes, "is quite another thing from the full business of merely keeping well."

"If the idea of individual normality lacks fascination what shall be said of the cause of public health? How ready the average citizen is to admit its importance, to take it for granted; how reluctant to hear about it or to try to understand it! Only when the system breaks down or interferes with the individual is he for the moment panic-stricken, indignant, or rebellious. *For all the fine phrases about the triumphs of modern sanitation and hygiene, the subject of public health leaves most people cold.*"

Vincent believes this to be the logical outcome of imposing public health "upon communities and nations by experts who have had the backing of governments." "Further progress through official authority," believes the author, "is becoming increasingly difficult, and for a quite obvious reason. Later gains must come from the more or less voluntary behavior of the individual with respect to food, posture, exercise, sleep, fresh air, clothing, mental and emotional life. Thus it comes about that in the leading countries emphasis is shifting from sanitation and epidemiology to personal hygiene, from an external and compulsory protection of population groups to the education and stimulation of the individual."

"This change of emphasis," continues President Vincent, "is the characteristic feature of contemporary public health. It reveals itself in the increasing complexity of official machinery, in the multiplication of specialized voluntary societies, in health education in schools and colleges, in a growing volume of health publications, in popular articles, in health posters and films. The average individual is being exposed to warning, suggestion, ap-

peal, and exhortation. And he for the most part is protecting himself, so long as he feels fairly well, against the discomfort of reflection and the inconvenience of changing his mode of life.

"The change of emphasis in public health work from cure to preventions has caught the doctors napping. The average physician is ill prepared to make the periodic health examination and to give the advice about personal hygiene which the new régime demands; he has been trained to look for disease rather than for health."

This entry of public health officers into competition with personal health doctors need not cause these "napping" servants of health concern, particularly in view of the fact that the best of the statistics made by the self-appointed super-doctors show that they can find few, if any, healthy subjects on whom to practice their prevention. Someone must repair the defects and broken parts in the overworked automobile, used as an analogy by the author, before the preventors find material suitable for their advice. There is more for the human repair men to do than ever before in the history of the world, and we suspect that most people will continue for a long time to listen to the doctor who has repaired defects about how to avoid future accidents, rather than the government inspector who is ever present with his "super-knowledge."

President Vincent concludes his discussion with the sound statement that, "in spite of confusing doubts and queries, generally indifferent to them, the protagonists of public health and hygiene go their way, sanitating the environment, trying with increasing success to control communicable diseases, and urging groups and individuals to live wiser, more wholesome lives, not simply for the sake of escaping disease, but to know the positive joy of vigorous physical and mental activity in work and play and community life."

If they only would!

Deputy (New York) Commissioner of Health, Paul B. Brooks (New York State Jour. Med., December 15, 1926), tells doctors there is a future in the private practice of disease prevention. He believes that the alleged decrease in private practice caused by the invasion of their field by government and other organizations may be overcome by the private doctor branching out into new lines.

It is suggested that the private physician could "develop a paying practice made up largely of preventive work." Protective inoculations are mentioned as some of the "many things that a physician" (presumably meaning the garden variety) "can do in this line." Such logic (?) overlooks the fact that it was precisely from these preventive and other personal health services that the private physician earned a fair share of his livelihood until government largely drove him from the field with its organized propaganda and offered—to rich and poor alike—these services, and even the materials used, "free."

It is hard for the personal health physician to meet government competition and government propaganda in offering everything "free," but in spite of the handicaps and ballyhoo about free service, isn't it a fact that personal health physicians continue as formerly to do much of the protective inoculation and other preventive work for most of their clients? The sales tags of drug stores reveal the answer.

Administration of Cod Liver Oil—Henry J. Gerstenberger, Cleveland (*Journal A. M. A.*), advises that cod liver oil should be given once daily on an empty stomach and when most of the family members are likely to be at home. In other words, the cod liver oil should be given in whatever dose thought necessary before breakfast. If under these circumstances the child vomits its first dose, a second should be immediately administered. As it also is a good policy to see that an antiscorbutic substance is administered daily, a small amount of orange juice, if desirable, may be taken immediately after the cod liver oil has been swallowed. The parent, however, is advised not to offer the orange juice as a reward or as a "chaser," but to get the child to understand in the first place that cod liver oil is essential to his welfare, and in the second place that he will get accustomed to its taste within a week or ten days.

MEDICINE TODAY

Current comment on medical progress, reviews of selected books and periodic literature, by contributing editors

The Editor: This new venture is intended to be an extension of the editorial section of CALIFORNIA AND WESTERN MEDICINE. That there is a need for it seems manifest by the expressed opinions of our advisors. In order to distribute the tremendous amount of work necessary to make the effort worth while, the broad field of medicine has been more or less arbitrarily divided some forty ways with one or more contributors to each subject.

Clear, brief comments of editorial or high-class textbook character on points in medical progress; reviews of books and magazine articles on any subject, from any source, and other matters which in the opinion of the contributing editor, whose name appears at the end of his comment, are of importance or significance to all physicians, is the chief aim of this venture.

Members interested in assisting to make this department serve its useful purpose are invited to communicate with the editor.

DERMATOLOGY AND SYPHILOLOGY

THE importance of a thorough knowledge of syphilis in the practice of medicine has been stressed by many leading teachers. This disease is so common, and at the same time so protean in its manifestations, that many of the tragic errors in practice are due to the failure of an early diagnosis or to insufficient treatment. The subject is so broad that a definite specialty has developed around it in spite of the fact that its manifestations concern alike the general practitioner and the various specialists. Syphilis has been studied and written about since the fifteenth century at least, but the most striking advances have all occurred during the present century, starting with the recognition of the causative organism and continuing with the development of the Wassermann reaction as an aid in its diagnosis and the various arsenicals in its treatment. During the past few years, intensive research in laboratories and clinics devoted to the study of syphilis has resulted in an extraordinary improvement in our methods of diagnosis and treatment. These advances have all been published in medical periodicals, but the material is so scattered and so difficult to evaluate that only those who are specially interested in the subject have been able to keep pace with them. There has been no single text which presented the entire subject in a modern manner. This gap has been filled by Stokes' ¹ book on syphilis. This book is a complete compilation of our present knowledge of syphilis augmented by a huge personal experience under the most favorable conditions for scientific study. The subject is covered in a single volume with painstaking thoroughness clarified by an orderly arrangement that makes it possible to study any particular phase that is of particular interest. The availability of the material is greatly augmented by the employment of clean-cut tables wherever they are practicable, by numerous good illustrations, for the most part photographs, and by a full and accurate index. Many case histories are used to point out possible pitfalls and to illustrate particular phases.

1. Stokes: Modern Clinical Syphilology, 1926 (Saunders).

In addition to taking up all the angles of scientific diagnosis and treatment, Stokes includes discussions of his own methods of dealing with the patient from the personal standpoint under given circumstances. This is a phase that is often difficult and one that is rarely discussed in textbooks and monographs. His particular methods may not always agree with our own ideas on the subject, but at least show us one acceptable path. Some of the details, especially in regard to treatment will probably require revision with passing years, but Stokes has presented modern knowledge of syphilis in a form that makes it readily available to everyone. His book is a milestone in the teaching of modern medicine.

HOWARD MORROW.

THE erysipelas-like eruption among fish handlers, first described by Rosenbach in 1884, has been recently restated by Klauder, Righter, and Harkins. ¹ It is frequently seen in workers exposed to fish (particularly shell fish), game, and cheese. Gilchrist traced the cause to bites by crabs and cuts from their shells. It is also observed in veterinarians accidentally inoculated through a needle prick when immunizing swine with the serum of swine sickness, and in persons handling diseased pork. There occurs a purplish-red spreading erythema limited almost exclusively to the hands and wrists which lasts all the way from five days to several weeks. Ordinary erysipeloid does not spread far and the symptoms are mild, but when due to infection from swine may involve the hands, forearms and arms, and there may be considerable, painful swelling with lymphangitis and enlargement of regional lymph nodes. Klauder and his co-workers studied one thousand cases among commercial salt-water fishermen. This disease is the chief cause of disability among fishermen who work in fish ponds and handle live salt-water fish. In spite of all treatment the usual period of disability has been from two to three weeks. The authors found that the causative organism was identical with the bacillus of swine erysipelas, and they prepared a serum which they injected intramuscularly with very encouraging results.

H. N. Cole and Chambers ² found that after three or four weeks of daily injections (in doses corresponding to 5.5 mg. of mercury) the total daily excretion averaged about 1 mg. of mercury. Only one-sixth of the injected mercury is excreted. The remainder accumulates at the rate of about 4.5 mg. a day. With inunctions the excretion rises progressively so that it is about four times higher at the end of the fourth week than at the end of the first week of treatment. At the end of the fourth week of inunctions the excretion is almost double that of the injections. The injections act more promptly, but the inunctions are presumably more powerful. This corresponds with our clinical experience. In

¹ Klauder, J. V.; Righter, L. L., and Harkins, M. J.: A Distinctive and Severe Form of Erysipeloid Among Fish Handlers, Archives of Derm. and Syph., December, 1926, Vol. 14, No. 6, p. 662.

² Excretion of Mercury After Intramuscular Injection of Mercuric Bromide, Inunction and Rectal Suppositories, Archives of Derm. & Syph., December, 1926, Vol. 14, No. 6, p. 683.

the latter instance there is very considerable storage of mercury in the follicles each time it is rubbed in. Absorption of mercury from rectal suppositories appears to be insignificant.

HARRY E. ALDERSON.

TUBERCULOSIS

THE use of sunlight in the treatment of pulmonary tuberculosis has received much attention from physicians since Rollier demonstrated its therapeutic value in tuberculous bone and joint disease.

It is logical to believe that sunlight, one of the most potent agents for the stimulation of metabolism, and proved to be effective in surgical tuberculosis, also should be useful in the treatment of pulmonary lesions. What is the reason that with all the experience in light therapy obtained by clinicians during recent years that there should be no unanimity of opinion among them?

Pollock¹ believes that "a review of the literature is more or less confusing and does not greatly assist one in estimating the value of heliotherapy in pulmonary tuberculosis if one gives equal weight to the opinion of each writer."

Indeed, the opinions of the authors quoted play the whole scale from optimism to strong disapproval of the use of sunlight in pulmonic lesions, and one is reminded of the discussion that used to wage for and against the use of tuberculin in the same condition.

The reason for this diversity of opinion is not hard to find and lies in the fundamental similarity between the effect of sunlight and tuberculin upon a tuberculous focus. Sunlight is a potent agent for the stimulation of metabolism. The effect of a light bath on a tuberculous lesion is similar to that of a dose of tuberculin, that is, it causes a perifocal reaction which, when properly graded and spaced, initiates a healing process.

The effect of an overdose of sunlight resembles in many ways the effect of an overdose of tuberculin: increased temperature, increased toxemia and frequently bleeding.

It is essential, therefore, to select the patients who are to be exposed to sunlight with the greatest care. Fibrous lesions react best, while improvement is less marked in those individuals whose lesions approach the caseous or fibrocaseous type.

In other words, activity and toxemia are the warning signals in sun exposure as they are in the use of tuberculin. Sunlight is a stimulant of activity, and an overactive focus must not be further stimulated.

The careful consideration of dosage is an essential factor of success in the use of sun exposure. The author advocates a modification of the Rollier schedule, dividing the body into zones but limiting the exposure at first to two-minute intervals instead of five minutes as is usually done. The chest is not exposed until the rest of the body is pigmented, and great care is used in exposing the chest where pulmonary activity is present.

He concludes that exposure to sunlight, or to

artificial rays where sunlight is not available, is a valuable therapeutic aid in the treatment of lung tuberculosis.

Patients showing activity and toxic symptoms must be carefully guarded against undue reactions, and precautions must be used against overstimulation.

Sunlight is of great value following thoracoplasty and artificial pneumothorax.

Success with this treatment, as in many other therapeutic measures, depends very largely on the proper selection of cases.

LEWIS SAYRE MACE.

SURGERY

SKIN GRAFTING—Skin grafting has now reached a stage of scientific understanding. New terms¹ as autograft, a graft from the patient himself; isograft, a graft from an individual of the same species; and zoograft, a graft from a lower species, are now employed. Clarity as regards the source of grafts has been reached, and only the autograft² is recommended. Histological studies of the graft have led to the rational conduction of the technique of operation and the postoperative care.

For the first two to three days a skin graft is as a foreign body living a parasitic life.³ Life is maintained by the lymph of the host permeating into the intercellular meshes of the graft. After twenty-four to thirty-six hours the capillaries of the host begin to penetrate into, or to anastomose with those of the graft. Only by the eighth day is circulation sufficiently complete to sustain life and growth. It is necessary, therefore, to obtain the graft as free from all extra subcutaneous tissue as possible and to avoid any trauma that will occlude the capillaries. Trimming off fat with scissors pinches and compresses the capillaries. On the other hand, sharp knife-blade dissection does not, and so is advised. A fresh razor blade, held in a hemostatic forceps, serves admirably and insures the necessary sharp cutting edge.

The postoperative care is recognized as being the other important phase of skin grafting. The close and continuous approximation of the skin graft to the grafted area is a principle that underlies all dressings. This approximation is most important, both in full thickness skin grafts and in split skin grafts, as the Ollier Thiersch type. Many forms of dressings for the split skin graft have been suggested, and all are good if complete and continuous immobilization is effected, but otherwise failure will ensue. Pressure and immobilization for the full thickness skin graft is usually accomplished by the use of a mould to fit the area, by the synthetic rubber sponge, or by a bandage. A definitely measured pressure would be better. Too much pressure may mean necrosis, and too little pressure a lack of proper nourishment. Ferris Smith³ says "that, since the quantity of lymph is usually proportional

1. Davis, J. S.: The Nomenclature of Skin Grafting, Surg., Gynec. and Obst., 1925, XLI, 841-42.

2. Holman, E.: Protein Sensitization in Isoskin grafting, Surg., Gynec. and Obst., 1924, XXXVIII, 100-06.

3. Smith, F.: A Rational Management of Skin Grafts, Surg., Gynec. and Obst., 1926, XLII, 556-62.

1. Pollock, William C.: Heliotherapy in Pulmonary Tuberculosis, American Review of Tuberculosis, November, 1926, p. 505.

to the height of the capillary pressure, any factor which will raise the capillary pressure will favor the increased flow of lymph. Further, we know that the peripheral venous pressure varies from 5 to 15 millimeters of mercury and that the arteriole pressure ranges from 40 to 50 millimeters of mercury. A pressure, then, which will compress the venules, that is more than 15 millimeters of mercury, and will partially compress the arterioles, meets our requirement. A dressing at a pressure of 30 millimeters of mercury has been very satisfactory in our experience." This pressure may be accomplished and determined by the use of a rubber⁴ balloon bag and the blood pressure manometer, respectively.

Atraumatic cutting of the graft and perfect and continuous immobilization should be employed in all skin grafts. The full thickness skin grafts should in addition have a pressure of 30 millimeters. These are based upon scientific principles, and are essential to success.

JOHN HOMER WOOLSEY.

INDUSTRIAL MEDICINE

ORGANIZED medical service in industry is essentially a product of the last two decades in the field of industrial management, and it promises greater development in the future than it has had in the past. Yet there is enough evidence at hand to justify the statement that the industrial physician is playing an important part in American industry.

The functions of medical departments in industry as related in the report of the National Industrial Conference Board¹ are preventive and curative, and include:

Physical examinations of applicants for employment and of workers returning to employment after illness.

Periodic re-examination of workers in hazardous occupations.

Treatment and redressing of injuries.

Diagnosis and treatment of minor medical disturbances as well as advice on medical problems.

Sanitation of workshops and maintenance of proper working conditions.

Health education and accident prevention.

In the smaller plants treatment of injuries is often the only work done by the plant physician, especially if he devotes only part time to industrial work or only visits if called. In larger plants practically all of the activities mentioned above will be found as the work of the medical department, and each item really belongs in any well-developed medical service.

Nurses play a rather prominent part in the work of medical departments. In the larger groups they are important aids to the physician, while in the small organizations, they represent the backbone of the department.

The physical examination of applicants is coming to be a common feature of employment management and, with the understanding of the purpose involved, opposition on the part of workers is disappearing. The object of these examinations is not to exclude persons with defects, but rather to mini-

mize sickness and accident risk by occupational selection.

A survey of 501 plants showed that over half made examinations occupying from ten to fifteen minutes and that the percentage of rejections was very small. Fewer injuries occurred in plants where examinations were made, but medical disorders were recorded in greater frequency, probably because of better medical work rather than a greater prevalence of disease.

Treatment of minor medical disorders seemed especially desirable in enabling the sick or injured worker to continue at his occupation and in preventing infections and serious types of illness. Plants should be equipped with proper facilities for diagnosis. If diagnosis reveals the necessity of prolonged treatment, the patient is generally referred to his private physician. In remote places both diagnosis and treatment are done at the plant.

Good health is an asset of the worker. The employer has a direct responsibility in seeing that this asset does not suffer impairment through adverse working conditions. Some plants also supplement this care by the use of health education and personal hygiene, which tends to better conditions outside of work.

The cost of medical service in industry has risen from an average of \$4.43 per employee in 1920 to \$5.14 per employee in 1924. The average annual expenditure for medical service was \$1.03 for each \$1000 of goods produced and \$3.62 for each \$1000 paid out for wages.

Medical service in industry has demonstrated its worth by protecting the worker from accident and disease, by health conservation, by adding to the productiveness of industry and by lessening the amount spent for public charity or for private relief, which in a number of cases would not come to the attention of a physician. Industrial medicine is already widespread, but its full influence on industry and the community is still to be measured.

C. O. SAPPINGTON.

ORTHOPEDICS

EMERGING from the subcutaneous stage with the discoveries of Lister, the surgery of deformities entered the period of open operation *pari passu* with other branches of surgical procedure.

Daily wrestling with the mechanical problems affecting the motor mechanisms of crippled human bodies through intervening years brought the devotees of bone and joint surgery up to 1914 with a fund of special knowledge which proved invaluable in dealing with the skeletal wreckage of war.

So great and so urgent was the need for the application of orthopedic principles in war surgery, that those already recognized as specialists in this branch of practice were altogether inadequate to meet the demand. Groups of picked men, usually chosen for a degree of proficiency in general surgery, were trained as rapidly as possible by high pressure methods of instruction in the principles of orthopedic surgery under military routine. Thus, at once, was the spur of a great need applied to the older special

4. Smith, F.: Pressure Bags for Skin Grafting, Surg., Gynec. and Obst., 1926, XLIII, 99.

1. Medical Care of Industrial Workers, National Industrial Conference Board, 1926, p. 112.

group and a strong infusion of new blood administered.

When the war was over it seemed, for a time, that the identity of orthopedic surgery, as a specialty, might be lost through the very wide dissemination of the principles of its practice. (For a fine appreciation of his own specialty and a generous acknowledgment of its debt to general surgery, let the interested reader go back to "The Orthopedic Outlook" by Lieutenant-Colonel R. B. Osgood, *The Journal of Orthopedic Surgery*, Vol. I, No. 1, January, 1919.)

It soon became clear that there was nothing to fear for the identity of the specialty. A certain more than average fund of patience in the tedious striving for functional results and an inherent affinity for, if not aptitude in dealing with mechanical problems soon separated those who were to live and die orthopedic surgeons with general surgical experience from those who were destined to do likewise as general surgeons with orthopedic training. The result has been a broader and more sympathetic understanding among surgeons, an increasingly better service to suffering humanity and a strong and sustained advance in recreative and reconstructive surgery.

Great strides have been made in the knowledge and treatment of such conditions as congenital dislocations of the hip, scoliosis, infantile paralysis, tuberculosis of bone, the arthritides, fractures, bone-grafting, postural defects, and literally scores of lesser problems presented by crippled humanity.

The literature has kept pace with the advances of practice. The reader who is interested in a resumé of important advances is commended to the little book by A. H. Tubby¹ for a concise resumé of important developments during the preceding decade. As an extended critical review of the current literature, "The Reports of Progress in Orthopedic Surgery," compiled and edited by a group of Boston surgeons, led by Osgood and published from time to time in the *Archives of Surgery*, is invaluable.

The specialty of orthopedic surgery has emerged from the narrow confines and relative isolation of its earlier years. Teaching of the principles of orthopedics is an established part of medical education. Those who have made this specialty their acknowledged field of life endeavor have come to realize that any qualified surgeon who carries out orthopedic procedures according to the best standards of modern knowledge and technique does honor to the cause, whether or not he chooses to call himself an orthopedic surgeon.

Orthopedic surgery has become a great reconstructive branch of special surgical practice, and its devotees have taken their place as master mechanics in the noble guild of healing arts and practices.

E. W. CLEARY.

PROCTOLOGY

PROCTOLOGY, let it be said, has gradually separated itself from the realm of general surgery. The reasons for this are several: the increasing knowledge of pathological processes; refinements in diagnosis and treatment; introduction and use of more accurate and specialized instruments used as accessories and the reaction to exploitation of this subject by insufficiently trained individuals. Specialization tends to develop in accordance with physiological body units, thus the large bowel with its peculiar manifestations of disease has also become the object of special attention; indeed, proctologists have for this reason invaded an area beyond the original meaning of the term.

By digital examination alone 25 per cent¹ of rectal cancers should be discovered since as many start within reach of the examining finger, and the greater number of the remaining 75 per cent which start at recto-sigmoid junction may be observed through the sigmoidoscope. But mere examination does not suffice to establish a diagnosis, and the proctologist himself may be warned of difficulties not to be overcome by the more mechanical part of his practice.

Following the examples set in the past by the Allinghams, Sir Charles Ball, Harrison Cripps, Tuttle, Bardenheuer and Kraske, others, such as Ernest Miles, Lockhart Mummery, Bensaude, Quénu and Coffey, to mention only a few, have made real contributions to surgery of the large bowel. Through them the "Kraske" operation for rectal cancer is in desuetude, while the most radical of all² that of Ernest Miles, is either being standardized or, at least, its principles are being widely and practically accepted. In this disease, also, radium and x-rays have had their proponents and later still colloidal salts of the heavy metals have come into use as adjuncts to operation or as the sole means of hope in inoperable cases. Still under consideration, with prospects of hearing fruitful results, is the lead treatment³ experiments on which began under the auspices of Blair Bell of Liverpool. Pathologists more than suggest that all adenomata of the rectum may degenerate into malignant growths, and a multiplicity of these calls for resection of the colon.⁴

Cancer of the rectum with chronic ulcerative colitis are the two most important diseases the proctologist has to diagnose and treat. They are both mainly surgical and the results depend on early diagnosis. Diverticulitis is much more common than has been previously supposed, and at times surgical treatment is not only correct but urgent. While putting the graver diseases forward one does not forget more common conditions which are inclined to obscure the former, nor the fact that some of these conditions are prevalent in children, such as

1. Woolf, M. S.: *Calif. and Western Med.*, 1924, pp. 612-616.

2. Miles, W. Ernest: *Surgical Treatment of Cancer of the Rectum*, *Brit. M. J.*, 1920, 11.

3. The Nature of Malignant Neoplasia and Treatment of the Disease with Lead, *Brit. M. J.*, 2:919-938 (Nov. 20), 1926.

4. Dukes, S.: Relation of Simple to Malignant Tumors of the Large Intestine, *Proc. Roy. Soc. Med. (Proctol. Sub-Sect.)*, 1926, January. Idem, in *Brit. J. Surg.*, 1926, XIII, April.

¹ The Advances of Orthopedic Surgery. McMillan Company, 1925.

fissures, adenomata, proctitis, and prolapse, while hemorrhoids are not unknown.

Hemorrhoids are, par excellence, the most frequent cause of bleeding from the anus and for this reason have been the most frequent cause of obscuring the diagnosis of cancer; but as a rule the bleeding is of an entirely different type. A nonoperative remedy for hemorrhoids which, in certain instances, will stop bleeding and very often cure the hemorrhoids themselves, is their injection by some escharotic.⁵ This form of treatment has been disinterred from the past or, rather, kept fitfully alive mainly by the less orthodox of rectal specialists. For this we must give them due credit. It is a proper, safe and good way of effacing the smaller hemorrhoidal masses.⁵ Fissures, in the adult, as a rule require excision. In children they usually heal spontaneously or by divulsion of the sphincter if constipation is not marked. Fistulae are not now so commonly seen as formerly, when manifold branches opened onto the surface. But should medical measures be undertaken in their case (they usually have one common tract) they are usually curable, although several large and radical drainage wounds may be necessary at one or more operations.

With this field of surgery actively being investigated, we may expect to eradicate some of the important difficulties at present confronting us. For example, there is the large operative mortality of a desirably extensive operation for cancer of the rectum, the unknown cause and unsatisfactory treatment of the disease at present known as nonspecific ulcerative colitis, the resistance to treatment of acute and chronic proctitis, the unsatisfactory nature of all existing operations for the severer stage of prolapse of the rectum.

M. S. WOOLF.

5. Morley, Arthur S.: Hemorrhoids. Cloth \$2. Pp. 114 with nine illustrations. Oxford.

Roentgen-ray Diagnosis of Pleural Effusions, General and Local—L. R. Sante, St. Louis (*Journal A. M. A.*), regards roentgen-ray examination of the chest of importance in the diagnosis and localization of pleural effusions. Fluoroscopy should never be relied on alone, however, for diagnosis, and should always be checked by radiographic examination. The roentgen-ray characteristics of pleural effusions are: In general effusions: When the lung is well areated and is freely movable: 1. There is a dense shadow occupying the lower portion of the chest. 2. The costophrenic sinus is obliterated. 3. The upper border is curved, concave, extending upward and outward from the hilum toward the auxiliary line, showing little, if any, change, on change of position of the patient. 4. There is displacement of the heart and mediastinal structures in large effusions, or, when these structures are not displaced, a persistence of the areation of the apex. 5. Diaphragmatic shadows are obliterated, and there is a continuation of the shadow of the effusion with that of the liver or spleen. When the lung is consolidated or fibrosed and has lost its resiliance: 1. There is a ribbon-like shadow along the parietal wall of the chest. In local effusions: 1. The entrapping of fluid usually occurs during the course of an inflammatory process. 2. The effusion may occur in any location where two pleural surfaces come in contact with each other; between parietal and visceral pleural layers; at the anterior, posterior or lateral chest wall; between diaphragm and lung, mediastinum and medial border or interlobar. 3. Whatever the location, the effusion produces one characteristic shadow—convex rounded border, with its base at the periphery, and the convexity inward toward the lung.

MEDICAL ECONOMICS, ORGANIZATIONS AND AGENCIES

Board of Medical Examiners (California)—The annual report of the Board of Medical Examiners now in press contains much information valuable to physicians, as well as recommendations that will have the united endorsement of physicians and which merit the attention of lawmakers, as well as those charged with the enforcement of existing laws.

Dr. C. B. Pinkham, secretary of the board, has supplied us with the following highlights from the report:

The report comments on the disastrous results following the local application of poisonous preparations by so-called beauty specialists, a tabulation of deaths resulting therefrom listed, and urges legislation to prohibit a continuation of the use of poisons in toxic doses in face-peeling preparations.

Comment is made on the necessity for continued, careful scrutiny of credentials submitted by applicants from other states, as well as the issuing of duplicate certificates, the diploma mill exposé of 1924 demonstrating the ease with which fraudulent credentials may be used in securing a license to practice in a sister state.

Legislation is urged making it a felony to issue, barter, or sell fraudulent credentials to be used in connection with a license to practice in the state of California.

Legislation is also urged to curtail the incorporation and operation of quasi-fraudulent institutions or "sun-down" colleges. "So long as lax state laws permit the incorporation of 'sun-down' institutions clothed with statutory authority to grant professional degrees without exaction of a capable teaching force, satisfactory equipment and honest management, the incorporators of such institutions, careless of human sacrifice, will continue to line their pockets with ill-gotten gains through the selling of degrees. California, unfortunately, is one state where about three individuals, with approximately \$1250 to spend, can incorporate any kind of a nonprofit-sharing college and issue any kind of a degree without molestations." Profiting by the diploma mill exposé showing the ease with which licenses to practice have been bought in other states, it has been suggested that Section 13 (reciprocity) of the Medical Act be amended so that an oral examination be required of those coming to California from other states, basing their applications on a license issued by a sister state bearing a date ten years prior to the filing date in California. An oral examination should also be exacted when any question arises as to the applicant's qualifications. Such procedure would obviate the possibility of impostors filing applications in this state, they knowing the impossibility of their passing any kind of an examination.

Applications filed during the past year exceeded those of the prior year although the total number of certificates were less, this being due to the fact that one of our California medical schools which heretofore has sent us approximately forty-five applicants for examination, had no graduating class during the year 1926.

Certificates have been granted to those presenting credentials from other states in less number than the prior year, the largest number of applicants coming from Illinois, which ranks third in the United States in the total number of physicians licensed. New York, which shows the largest United States registration of physicians, sent California the second largest group of reciprocity applicants, while Pennsylvania, the second largest in registered physicians, sent us only eight reciprocity licentiates.

California licentiates in the number of fifty-seven sought registration in other states during the year just closed.

Written examination results for physicians and surgeons' certificates show that 85 per cent passed and 14 per cent failed. Drugless practitioners: 53 per cent passed

and 46 per cent failed. Chiroprodists: 100 per cent passed. Midwives: 40 per cent passed and 60 per cent failed.

The grand total of all those examined in this state under the Medical Act shows 82.6 per cent passed and 17 per cent failed.

Hearings—Thirty-five licentiates of the state of California were called before the board during the past year to show cause why their license should not be revoked. In this group the largest percentage of violators, i. e., 62 per cent, were those charged with violation of the narcotic law, and as a result the largest number of hearings during several years past, were held by the board. Sixteen licenses were revoked; three suspended; nine placed on probation; five found guilty and judgment deferred; while two are still pending hearing.

Report of the legal department shows fifty-four cases handled in the North, and sixty-six in the southern district, with a total of \$4016.25 received from fines on charges of violations of the Medical Practice Act, although the board some time ago adopted a policy of not requesting fines, but asking the trial judge to impose such a sentence, with probation should he so desire, which would have a salutary effect in discouraging further violations of the law.

Enforcement—"One of the disheartening features of the board's work is reflected in the delays offered by court procedure undertaken by those licensed to practice under the Medical Act who, having been penalized after a conscientious hearing at a legal meeting of the board, thereafter invoke the law's delays through the medium of a writ of review or some similar legal process, that results in tying the hands of the board. Those whose licenses have been revoked have only to appeal for such a writ and then practice merrily on in defiance of the order of the board, for our experience has been that attempts to prosecute such individuals for violation are given no consideration, the court refusing to proceed with the hearing on the theory that nothing can be done until the higher courts decide on the merits of the writ of review, which, in the present crowded state of court calendars, means about two years' delay."

Suggestion is made that, if legally possible, Section 14 of the Medical Act should be so amended that writs of review should go directly to the Appellate Court, thus obviating the tiresome delays now experienced in Superior Court procedure.

Deceased—The records show that during 1926 deaths among licentiates were increased over those reported in 1925.

The financial statement shows the income of the board during the past calendar year to have been \$62,664.86, which was considerably in excess of the amount expended.

Howard H. Johnson, director of Saint Luke's Hospital, San Francisco, after a study of comparative costs of hotel and hospital care (exclusive of physicians' fees), arrives at the following average costs for ten days' service:

| Hotels (first class) | | Hospital | |
|-----------------------|----------|------------------|----------|
| Room | \$ 60.00 | Room | \$ 75.00 |
| Meals | 45.00 | All extras | 30.40 |
| Laundry | 2.00 | | |
| Tips | 5.00 | | \$105.40 |
| Telephone | 4.00 | | |
| | \$116.00 | | |
| Hotels (medium class) | | Hospital | |
| Room | \$35.00 | Room | \$50.00 |
| Meals | 20.00 | All extras | 30.40 |
| Laundry | 2.00 | | |
| Tips | 3.00 | | \$85.40 |
| Telephone | 3.50 | | |
| | \$63.50 | | |

The eminent fairness of these figures is supported by the statements of traveling men who are allowed from \$10 to \$25 a day for hotel expenses. They are further supported by reports to CALIFORNIA AND WESTERN MEDICINE, showing that when one member of a family is ill in a hospital and the other stops at a hotel, the cost of hotel service usually exceeds hospital costs, exclusive of the physician's fee. Those who are ill in hotels find costs

still very much higher. Why is it then that thousands of people who daily pay, without grumbling, expensive hotel bills, often complain at smaller hospital charges when they are ill?

The hospital renders every service that the hotel renders—renders it day and night—as well as many services that hotels do not render at all, because they are not needed for the healthy.

For obvious reasons it costs more per room to build a good hospital than it does an equally good hotel. Salaries, wages, power, light, heat, food, bedding, subsistence, laundry, and many other essential services cost the hospital fully as much as they do a hotel.

Hotels are operated by keen business men for business purposes, and most of them make a profit. Hospitals, the better ones, are operated by equally good—often the same—business men who operate hotels, and yet very, very few hospitals make a profit.

The truth of the matter is that most of the complaints about excessive hospital charges is plain "bunk," and is of the same type that was current about hotel charges a short generation ago when hotels changed from the so-called "American plan" to the so-called "European plan" of figuring costs and making charges.

The remedy is: more extensive public information about the facts and less howling by those who should know better about the abnormal costs of hospitalization. There is not a significant bit of evidence to indicate that the costs of good hospital service can be materially decreased. This because medical progress is constantly making new demands, expensive to meet, and still further increases in hospital costs will be necessary to hospitals that fulfil this legitimate purpose.

The National Guard and the Medical Reserve Corps—The National Guard of the various states is now turning in to help develop the Medical Reserve Corps and its organized units—appreciating that the latter will furnish the hospital service required by the National Guard.

Upon the request of Colonel Edgar A. Sirmyer, National Guard officer, Ninth Corps Area; Brigadier-General R. E. Mittelstaedt, Adjutant-General National Guard of California, has issued an official appeal, from which we abstract:

"Outside the four General Hospitals maintained throughout the United States by the Medical Department of the Regular Army, the utmost expansion of which could do little to meet the needs of hospital service in case of mobilization, the operation of the entire hospital service for the army of the United States is reposed in the Medical Reserve Corps.

"The medical service maintained by the National Guard is entirely divisional, and makes no provision whatever for medical care except that of brief emergency within the National Guard divisions themselves.

Any member of the National Guard, on mobilization in national emergency, suffering any serious or protracted illness or injury, must therefore look for definite hospital care and professional treatment outside the National Guard divisional area.

"I feel accordingly that the members of the National Guard have a direct personal and vital interest in the building up of the General, Evacuation, Surgical and Station hospitals, the Hospital Centers, Laboratories, Hospital Trains, and other relief establishments operated by the Medical Reserve Corps, and which will be the only institutions available for the care of sick and wounded members of the National Guard, in any emergency, of whatever magnitude.

"No conflict whatever between enrollments for the National Guard, Medical Department, and for the Medical Reserve Corps, need exist. The following are some of the main reasons:

"(a) There are many doctors who do not wish to give the time, and accept the responsibilities incident to joining the National Guard, but who would be quite willing to accept a commission in the Medical Reserve Corps, as the latter requires no time or effort that the officer may not wish to give.

"(b) National Guard Medical Service is service with troops, with its professional work necessarily limited to

the emergency and temporary care of cases. There are many physicians in civil life who are interested only in the professional end of medical service, and in the direct care of the sick and disabled. Practically all the specialists come under this class, as operating surgeons, internists, genitourinary men, x-ray men, laboratory men, etc. The hospital service functioning in the nondivisional units of the Medical Reserve Corps furnishes exactly the kind of professional work that would appeal to these men in case of national emergency.

"It appears from the foregoing that the National Guard would thus help create the hospital service necessary to itself from a class of physicians who, in time of peace, would not join the National Guard, and would otherwise have to be left out of its consideration."

Restoring the Normal Peristalsis to "Cooperation" in Health Work—A prominent voluntary health organization in New York has instructed its local executives to "cooperate more closely with their county medical societies." It is even suggested that programs for proposed work by the voluntary agency be submitted to the county medical society for suggestion, criticism or approval before it is put into operation.

News items of similar character are appearing with increasing frequency, and the movement is worthy of emulation by other voluntary health agencies.

A completely equipped and personneled hospital is one of the features of the recently enlarged and otherwise modernized historic Palmer house of Chicago. The hospital-hotel, the hotel-hospital, and the hotel with a hospital unit are all significant developments in the "onward march of civilization."

California needs 345 more Medical Reserve Corps officers to make our quota 100 per cent. The combination of personal advantages and the privilege of rendering public service in having one of these commissions ought to make them tempting. Utah now has 103 per cent and Nevada 60.86 per cent of their respective quotas. California's percentage is now 68.80.

The salesmen of the Abbott Laboratories and the Dermatological Research Laboratories from the Middle West and the South met in the home offices of that company in North Chicago the week of December 27.

Four days were spent in intensive study of the Abbott and D. R. L. products. Playlets were staged illustrating sales points, and round-tables were conducted on subjects of importance to the salesmen and the firm. On Tuesday evening, December 28, the salesmen were invited to attend the annual Christmas dinner and dance given by the employees of the Abbott Laboratories. Over 500 were in attendance at this function. On the following evening the salesmen were entertained at a banquet given by the Abbott Laboratories in their own cafeteria, recently installed at the North Chicago plant. Addresses were given at this meeting by Alfred S. Burdick, president of the Abbott Laboratories, who reviewed the progress of the company and introduced G. W. Raiziss, professor of chemotherapy, University of Pennsylvania, who spoke on the newer arsenical compounds, particularly bismarsen, a new combination of bismuth and arsenic; Roger Adams, professor of chemistry, University of Illinois, told of his investigations in the field of chaulmoogric acids; and A. G. Young of the University of Michigan spoke of the treatment of arthritis deformans with o-iodoxy benzoic acid, amidoxyl.

E. B. Myers Company of Los Angeles, whose advertisement appears in this and subsequent issues, formerly Nurses' and Students' Outfitting Company, Inc., are continuing the manufacture of "Medico" professional garments. It is the same organization and personnel that ran the Nurses' and Students' Outfitting Company for the past twenty years.

"Medico" is a registered trade-mark, and goods are shipped every day all over the western states. "Medico"

professional garments are made in stock sizes for wholesale supply houses and made to measure for individual trade. Each line is made in a separate factory. "Medico" garments have been improved steadily through the kind suggestions from our doctor friends from time to time. This is the reason why "Medico" professional garments are more advanced and more popular than other makes.

Besides "Medico" professional garments the E. B. Myers Company furnish the colleges in the western and southern states with academic caps, gowns and hoods.

"During the year 1925 workmen's compensation and medical benefits disbursed to injured and their dependents in the state aggregated \$10,615,080, of which the state fund paid \$3,329,601, or approximately one-third. The fund is a non-profit organization and to date has returned in dividends to its policyholders more than \$11,400,000."

There were 433 deaths from alcoholism among Metropolitan Industrial policyholders during the first nine months of 1926 with a death rate of 3.3 per 100,000. This is the highest death rate for this disease for any similar period since 1917. The rate for the corresponding period of last year was 2.9; the increase since last year was approximately 14 per cent.

Cirrhosis of the liver, which is closely associated with alcoholism, accounted for 863 deaths. These deaths give a rate of 6.6 per 100,000, which is slightly below that for the same months of last year (6.7), and a little higher than for the same period of 1924 (6.3).

Deaths charged to wood and denatured alcoholic poisoning numbered twenty-four during the nine months' period.—Statistical Bull., Metropolitan Life Ins. Co.

California Institutions for the Care of Tuberculosis Patients—So many inquiries are received from so many sources about institutional facilities in California for the care of patients suffering from tuberculosis that the most complete list available is given below. Errors will be gladly corrected if reported promptly to CALIFORNIA AND WESTERN MEDICINE.

Of course, as physicians realize, great numbers of tuberculosis patients are being cared for in practically all classes of hospitals. The majority of the institutions marked "private" are in fact partially supported by private philanthropy and there are few, if any, in the entire list that make a profit for the owners.

Ahwahnee Sanatorium (tax supported), Madera, Merced, and Stanislaus counties, Ahwahnee. 100 beds—free and \$45 to \$125 a month to residents of the three counties; \$4 a day to others.

Alameda County Tuberculosis Hospital (tax supported), San Leandro. 160 beds—\$1.50 a day and free.

Alpine Sanatorium (private), Alpine. 70 beds—rates \$25 to \$45 a week.

Alta Sanatorium (private), Alta. 25 beds—rates \$25 a week.

Alum Rock Sanatorium (private), San Jose. 60 beds—\$37.50 to \$60 a week.

Antonio Sanatorium (tax supported), Santa Barbara. 48 beds—free and up to \$20 a week.

Arequipa Sanatorium (women only) (private), Manoir, Marin County. 42 beds—\$10 a week ambulant patients; \$14 a week bed patients.

Arroyo Sanatorium (tax supported), Livermore. 200 beds—free and \$75 a month.

Barlow Sanatorium (private), Los Angeles. 90 beds—\$10 a week.

California Sanatorium (private), Belmont. 100 beds—rates \$35 to \$100 a week.

Canyon Sanatorium (private), Redwood City. 50 beds—\$30 to \$60 a week.

Cathramon Sanatorium (private), Colfax. \$20 to \$22 a week.

Colfax Hospital for Tuberculosis Patients (private), Colfax. 180 beds—\$30 to \$47.50 a week.

Fresno County Tuberculosis Sanatorium (tax supported), Fresno. 60 beds—free and \$35 a month.

Humboldt County School for the Tuberculosis (tax supported), Eureka. 50 beds—free and up to \$2.50 per day to residents of county; \$3.50 a day to others.

Independent Order of Foresters Sanatorium (private), Pacoima. 75 beds—free to members.

Jewish Consumptive Relief Association (private), Duarte. 90 beds—free.

Kolb & Kirschner's Sanatorium (private), Monrovia. 90 beds—\$25 to \$40 a week.

La Vina (private), Pasadena. 100 beds—free and up to \$22.50.

Las Solanitas, Housekeeping Cottages (private), Palm

Springs. 20 beds—rates \$40 to \$150 a month for furnished cottages.

Monrovia Sanatorium (private), Monrovia. 13 beds—\$25 to \$40 a week.

Mother Cabrini Tuberculosis Preventorium (private), Burbank. For Mexican and Italian girls under 14 years of age. Capacity, 100 beds—free with a charge for those able to pay.

National Home for Disabled Volunteer Soldiers (federal tax supported), Sawtelle. 135 beds—free.

Olive View Sanatorium (tax supported), San Fernando. 750 beds—free and up to \$2.25 a day. (Residents of Los Angeles County only.)

Pinecrest Tuberculosis Hospital (private), Oakland. 11 beds—\$25 a week exclusive of medical attention.

Pottenger Sanatorium (private), Monrovia. 144 beds—\$37.50 to \$65 a week.

Sacramento County Hospital (tax supported), Sacramento. 50 beds—free, but limited to residents of county.

San Bernardino County Tuberculosis Hospital (tax supported), San Bernardino. 40 beds—\$10 a week for those able to pay. (Residents only.)

San Francisco City and County Hospital (tax supported), San Francisco. 280 beds—free. (Residents only.)

San Joaquin County General Hospital (tax supported), French Camp. 42 beds—\$2 a day for those able to pay. (Residents only.)

Santa Clara County Tuberculosis Hospital (tax supported), San Jose. 75 beds—\$7 to \$10 a week. (Residents of state only.)

Shasta County Tuberculosis Hospital (tax supported), Redding. 16 beds—free.

Southern Sierras Sanatorium (private), Banning. 24 beds—\$100 to \$150 a month.

Stony Brook Retreat (tax supported), Keene. 50 beds—\$75 a month for adults; \$45 a month for children.

The Oaks Sanatorium (private), Los Gatos. 70 beds—\$35 to \$65 a week.

Tulare-Kings Joint Tuberculosis Hospital (tax supported), Springville. 100 beds—rates according to ability to pay. (Residents only.)

U. S. Veterans' Hospital (federal tax supported), Camp Kearney. 538 beds—free.

U. S. Veterans' Hospital (federal tax supported), Palo Alto. 246 beds—free.

Vaughan Home, San Diego County (tax supported), San Diego. 60 beds—free. (Residents only.)

Weimar Joint Sanatorium (tax supported), Amador, Colusa, Contra Costa, El Dorado, Placer, Plumas, Sacramento, Sutter, Tuolumne, Yolo and Yuba counties, Weimar. 300 beds—free to county patients; \$10.50 a week to other patients.

Wright's (private), Monrovia. 12 beds—\$5 a week; patients supply own food.

Low Temperature, High Barometer, and Sudden Death—Herman N. Bundesen and I. S. Falk, Chicago (*Journal A. M. A.*), present a series of curves to show the seasonal variations in mortality from organic diseases of the heart or from organic diseases of the heart, cerebral hemorrhage and chronic nephritis combined, in mean weekly temperatures and in mean weekly barometric pressures. The curves show that mortality was high when temperature was low, and vice versa. A clearly apparent correlation between the fluctuations in mortality and in barometric pressure is not demonstrated. The authors present in table form a series of correlation coefficients which were calculated to determine the relations between deaths from organic diseases of the heart, and barometric pressure or mean temperature. It appears that there was not a significant correlation between deaths from organic heart disease and barometric pressure in 1924, and in the first thirteen weeks of 1926. There was a significant, direct relation in 1925. In 1924 and in 1925 organic heart disease deaths were very significantly correlated inversely with temperature. In the 1924 and 1926 periods there were high, inverse correlations between barometric pressure and temperature. The inverse correlations between pressure and temperature were significant in the periods in which mortality was not significantly correlated with pressure; and were not significant in the only one of three periods studied (1925) in which a significant correlation between mortality and pressure was found.

We are not only to observe our bodies as to meat and exercise, whether they use them more sluggishly or unwillingly than they were wont; or whether we be more thirsty and hungry than we used to be; but we are also to take care as to our sleep, whether it be continued and easy, or whether it be irregular and convulsive. For absurd dreams and irregular and unusual fantasies show either abundance or thickness of humors, or else a disturbance of the spirits within.—Plutarch's Rules of Health.

CALIFORNIA MEDICAL ASSOCIATION

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 EMMA W. POPE, M. D., San Francisco.....Secretary and Associate Editor for California

MEDICAL ORGANIZATIONS DIRECTORY

Under "Contents" in every issue of CALIFORNIA AND WESTERN MEDICINE appears the above caption, giving the page where the directory may be found.

It embraces the names and addresses of all officers of the California Medical Association; the Scientific Sections; the County Medical Societies; and various other state medical organizations.

All members of the California Medical Association should acquaint themselves with this informative page of CALIFORNIA AND WESTERN MEDICINE.

1927 DIRECTORY CALIFORNIA MEDICAL ASSOCIATION

The 1927 directory has been mailed to all members of the California Medical Association. To interested persons not members of the Association, copies are on sale at the state office, 1016 Balboa Building, 593 Market Street, San Francisco for \$1.

Complete and accurate information in legible type is the goal set in each issue of the directory. We had hoped that no errors could be found in the 1927 directory, but unfortunately the three following names have been omitted:

J. M. Frawley, T. W. Patterson Building, Fresno.

Thomas B. Leland, 1195 Bush Street, San Francisco.

Rodney A. Yoell, 317 Physicians Building, 516 Sutter Street, San Francisco.

EMMA W. POPE, *Secretary*.

ORANGE COUNTY

Orange County Medical Association—The society has just completed the last half of a most successful year. A number of interesting papers have been heard since the summer recess. In September Burns S. Chaffee of Long Beach presented in a most able manner the subject of "Acute Intestinal Obstruction," bringing out many original points both in diagnosis and treatment. In October Carl W. Rand of Los Angeles gave a very practical talk and lantern slide demonstration on "Skull Fractures" based on a large series of cases attended by him both in private practice and at the Los Angeles General Hospital. In November John V. Barrow of Los Angeles presented in a most instructive way the subject of "Intestinal Protozoa," discussing the types of parasites, clinical entities caused by them and methods of treatment. In December Alfred E. Gallant of Los Angeles, visiting orthopedic surgeon at the Orange County General Hospital, conducted an excellent end-result clinic of the work accomplished on the Orthopedic Service during the past year in which he demonstrated many crippled children rehabilitated to a life of usefulness.

At the December meeting officers were elected for the coming year, as follows: D. C. Cowles, Fullerton, president; A. H. Domann, Orange, vice-president; D. R. Ball, Santa Ana, secretary-treasurer; C. D. Ball, Santa Ana,

librarian. Delegate, 1927-28, Harry E. Zaiser, Orange. Alternate, 1927-28, J. I. Clark, Santa Ana. Councilor, 1927-29, John Wehrly, Santa Ana. Another productive year is anticipated.

The Santa Ana Clinical Society has recently heard excellent talks from Robert W. Langley of Los Angeles on "Heart Disease" and Roy W. Hammack of Los Angeles on "Fungus Infections." Officers in the latter society for the ensuing year are, as follows: W. C. Dubois, president; M. W. Hollingsworth, vice-president; Waldo S. Wehrly, secretary.

The first unit of the new Santa Ana Valley Hospital is now under construction. It is to be of fireproof construction throughout with a capacity of forty-six beds, and will be erected at a cost of \$90,000. We are all glad to see this project finally under way, and feel that it will be a fine addition to the hospital facilities of the county.

D. R. BALL, *Secretary*.

SACRAMENTO COUNTY

Sacramento Society for Medical Improvement—President C. E. Schoff called the 1926 annual meeting of the society to order in the Empire Room of the Sacramento Hotel on December 21. There were forty-five members in attendance. The minutes of the last annual meeting were read and approved. The routine yearly report of the Board of Directors was rendered by President Schoff.

He called attention to the profitable year from the standpoint of papers and discussions, and then turned to future problems of the society. Due to the numerous scientific programs of the local hospital staffs which are presented by our own members, there is a possibility of repetition and monotony, and thereby detracting from our society programs. Schoff therefore suggests that invitations be extended to outstanding men of the profession from outside.

He then pointed to Sacramento as the logical medical center of northern California, and so thrust upon us the burden of carrying medicine to the laity through educational propaganda, legislation being a complete failure in every respect. He showed that we have three free medical centers here as possibilities along that line; what is needed in these is medical cooperation and actual assistance.

A resumé of Sacramento's hopes for 1928 was presented.

Schoff once again called our attention to the irreparable loss of James H. Parkinson and J. Loughridge, and closed by extending his sincere thanks to the Board of Directors for their complete cooperation and assistance.

Junius B. Harris was introduced as the new councilor for the district. Harris expressed a desire to keep up the fine work of his predecessor.

Scatena was then given the floor to speak on the Gorgas Memorial, and Gundrum followed him in saying a few words for the Walter Reed Foundation.

Drysdale, Bramhall, Wilder, Dunlap, Rulison, Henderson, Zimmerman, Foster, Hale, Gundrum, Topping Howard, and Snyder were nominated for the Board of Directors. The vote showed Drysdale, Dunlap, Bramhall, Rulison, Snyder, and Wilder elected.

Reardan, C. B. Jones, J. Roy Jones, and George Hall were nominated as candidates. The vote showed Reardan and C. B. Jones elected as delegates to the 1927 convention in Los Angeles.

J. R. Jones, G. J. Hall, George Foster, and Howard Hall were nominated as alternates. The vote showed J. R. Jones and George Foster elected as alternates.

For secretary, Thomas, Brendel, Christman, Gundrum, and Pitts were nominated. The vote showed Thomas elected as secretary.

After the reading of the secretary-treasurer's report for the year, a recommendation was made that the same dues as last year would suffice nicely. It was moved, seconded and carried that \$5 be named as the local dues, with \$10 for the state.

Reardan suggested that a recommendation be made to

the Board of Directors that one meeting a year be held under the direction of the County Hospital staff; one at the Sister's and one at the Sutter.

Schoff then introduced a number of our new members. Adjournment was made to a buffet lunch.

BERT S. THOMAS, *Secretary*.

SAN DIEGO COUNTY

San Diego County Medical Society—Despite the many demands of the holiday season two excellent medical programs were presented during December, one on December 14 following a dinner at the San Diego Hotel where an attendance of a hundred greeted three members of the home society, presenting the following program:

First, J. W. Sherrill presented informally the results of the work done by himself and E. F. F. Copp at the Scripps Metabolic Clinic on the somewhat new drug ephedrin. Their work consisted on a check-up of the physiological effects of the drug upon animals and later upon sixteen cases of asthma. The physiological action of the remedy was clearly outlined—its effect upon the circulation in ordinary doses was supporting, increasing the pulse rate and also the blood pressure; repeated doses of the drug, however, failed to hold the increase in blood pressure, while overdoses tended to weaken the heart and produce fibrillation. It constricted the peripheral vessels, blanching the mucous membranes and dilating the pupils, inhibiting motor activity of the intestine and other viscera, most of these effects being due to its influence upon the sympathetic nervous system. Due to its power to dilate the bronchi it is of distinct value in relief of asthma. Many of its effects are so closely allied to those of adrenalin as to be worthy of note. Among the untoward symptoms noted by these observers were weakness and dizziness, sleeplessness, diaphoresis, palpitation of the heart, and occasionally nausea and vomiting. It is contraindicated in weak hearts. In asthma they found that the severest cases were not greatly relieved, but that most cases improved under the continued use of it for a considerable period of time; and as it is comparatively nontoxic this treatment is justified. They ordinarily gave it in doses of 25 to 50 mgm. in capsule every three to four hours. The use of this drug was discussed by the following members: Redelings, Stealy, Sharp, Lazelle, Carrington, Copp, and Sherrill.

Doctor Churchill then gave a brief review of the value of quinidine in heart conditions as brought out by the clinical use of it in the arrhythmias during the past ten years. In brief, this remedy lessens the irritability of the auricles and reduces the frequency of the oscillations. After lucidly explaining the principles of the fibrillating heart he stated that quinidine will restore the rate of the heart to normal in about 60 per cent of all fibrillations. He considers that the danger from its use has been much overstated, although embolism and respiratory paralysis are possibilities to be considered. He thought failures would be fewer and accidents largely eliminated if our cases were carefully selected, and advanced the following cautions:

1. Never use quinidine in fever to correct fibrillation.
2. Always have the patient at rest in bed when giving it.
3. Give in large enough doses to get effect.
4. Avoid giving in the case of persons who have an idiosyncrasy to cinchona.
5. Do not give in the face of a history of embolism.
6. Do not use unless heart is well compensated.
7. Do not use it in the aged.

Besides auricular fibrillation the doctor has found it of value in paroxysmal tachycardia and in premature systole.

As to method of giving he advises thorough digitalization first, then give 6 grains every four hours day and night and continue for some weeks after rhythm has been restored, giving two or three doses a day.

The discussion was continued by Stealy, Doig, and Churchill.

The program committee is to be congratulated on the high order of the scientific programs during 1926.

The second meeting was a joint staff meeting of the Mercy, The Scripps Memorial, and the County General Hospital on the evening of December 28 at the County General, and consisted of an interesting symposium on cancer of the uterus considered from the standpoint of treatment; Weiskotten clearly defining the values and limitations of the x-ray and radium, Burger discussing surgical indications and techniques and the when and how of operative treatment, while H. P. Newman made a strong appeal to the reason in advancing a surgical technique for the early restoration to normal of both tissue and function of the uterus after injuries of childbirth and infection. This point in the opinion of the writer is one that cannot be overstressed in the preventive treatment.

In the death of Dr. P. C. Remondino the County Society loses one of its few charter members, as well as a man, a physician, and public-spirited citizen who has left his stamp on the history of San Diego. The doctor's life since coming to San Diego in 1873 has been one of continuous activity, and we hope to furnish the journal a proper tribute to his memory written by one who knew him well for a long period of time.

The 18th to 23d of January are red-letter days in San Diego medicine, when Doctor Marriott of Washington University, St. Louis, will deliver a course of lectures on subjects of biochemistry in medicine. This is the second annual course of the San Diego Medical Lectureship.

ROBERT POLLOCK.

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SAN JOAQUIN COUNTY

San Joaquin County Medical Society—The stated meeting of the San Joaquin County Medical Society was held Thursday evening at 8 p. m., January 6, 1927.

Twenty-four were in attendance, with Dr. Leo Eloesser of San Francisco guest and speaker of the evening.

In the absence of the retiring president, the secretary called the meeting to order and presented the new president, Doctor Barnes, who after a few appropriate remarks called for the minutes of the last meeting, which were read and approved.

The president introduced Dr. Leo Eloesser, who spoke on "Surgical Treatment of Pulmonary Tuberculosis." "As far back as a hundred years," Doctor Eloesser said, "a great Italian physician employed pneumothorax in the treatment of tuberculosis, and since then many physicians of various countries unfamiliar with the work of the Italian physician induced pneumothorax in disease of the lungs. Even as late as 1890, the late J. B. Murphy of Chicago, whose experiments and investigations placed pneumothorax on a secure basis, wrote independently, the Italian's work unknown to him. Gradually the physicians learned to overcome the obstacles presented by the mechanics of the chest.

"Introduction of artificial pneumothorax is a very simple measure. First, be sure that you are in the chest; for this purpose the manometer indicates respiratory movement. Air embolism has at times occurred and proved fatal by inducing artificial pneumothorax and other fleeting and untoward symptoms have resulted. Some accidents are unavoidable. Artificial pneumothorax is an efficient way to set the lung at rest; and all surgery for the relief of pulmonary tuberculosis has for its objective, rest of the lung. Pneumothorax is best used in unilateral lesions. It requires some judgment to decide whether to induce pneumothorax. It may cause old processes to flare up."

Eloesser does not favor continuous sanitarium treatment. If at the end of a year in a sanitarium the patient has not learned what to do and what not to do, no benefit is derived from prolonging such treatment.

Adhesions are the main obstacles to pneumothorax, and it is through cases with adhesions that surgery of the chest originated.

Thoracoplasty, like artificial pneumothorax, has become well established as a valuable method of treating certain forms of chiefly unilateral pulmonary tuberculosis.

The patients with one good lung and one bad lung, and in whom pneumothorax cannot be done, are suitable for surgical therapy.

The lung is limited in its shrinkage. There are three

structures which may resist the shrinkage. The mediastinum is quite movable and may yield by itself. The diaphragm is fairly movable, but the rib-cage is rigid. The ribs do not move. It is hard to get the pleura from the chest wall and lungs. To procure a maximum collapse a great deal of the rib-cage has to be resected. The resistance of the rib-cage is overcome by resection of a small portion of all of the ribs near the spine; take away one inch from each rib, and let the ribs collapse like the shutters of a Venetian blind. The test of a thorough operation is that there is no palpable rib near the spine from the twelfth to the first rib.

Resect all the ribs without shocking the patient too much. Use local anesthesia. The operation may be done in one, two or more stages. It requires surgical judgment whether to do it in one or more stages. After operation place the patient on the bad side until union has taken place—about six weeks to two months.

Thoracoplasty is indicated in patients who have been in a sanitarium for a long time and did not get well; patients who will not get well or will die. Another method is to compress the lung by raising the diaphragm, which is paralyzed and allowed to rise by resection or severing the phrenic nerve above the clavicle. Phrenectomy is of little value, alone it is usually insufficient, but often gives a clue as how the better lung behaves, and thus aids in deciding whether thoracoplasty should be done.

The doctor showed slides to illustrate the work he has done on patients. A rough estimate of the results obtained in patients amenable to surgical therapy is: cure, one-third; improvement, one-third; and in cases where the course of the disease was uninfluenced and death ensued, one-third. The one-third of cured patients and one-third benefited may be considered clear gain. By cured, the doctor understands a patient free of sputum and tubercle bacilli, fever-free and working. The one-third that failed to recover have not been harmed, as they would have died had surgical intervention not been attempted. Surgical intervention does not increase the patient's dependence upon doctors; the patient is not tied to a physician any more than the patient in a sanitarium or one undergoing treatment by pneumothorax or any other form of treatment.

Thoracoplasty has definitely established its value, when compression of a tubercular lung is desirable, but unattainable owing to pleural adhesions. The operation allows the chest wall to fall in and compress the diseased lung, putting the lung at rest and emptying the lung of abscesses and toxic substances. The results are often remarkable.

The members asked many questions which the doctor answered in a very instructive way.

There being no further business to be brought before the society the meeting adjourned at 10 p. m.

FRED J. CONZELMANN, *Secretary*.

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SANTA BARBARA COUNTY

Santa Barbara County Medical Society—The annual meeting of the Santa Barbara County Medical Society was held at the University Club on January 10, 1927, with Acting President H. E. Henderson in the chair.

At the dinner preceding the meeting there were present thirty-seven members and thirteen guests, the latter including Dr. Joseph Catton, speaker of the evening, the interns from the hospitals, and the entertainers. Accordion music, intermingled with songs led by Doctors Profant and Wills, and followed by Doctor Bagby with a story, and "Scotty" with his Scotch songs, entertained the dinner guests.

President Henderson called for a minute of silent prayer in commemoration of our departed president, Doctor Hotchkiss.

The speaker of the evening, Joseph Catton of San Francisco, was then introduced and gave a most interesting talk on "The Doctor Looks at Crime," with a vivid description of sixteen case reports.

At the conclusion of Doctor Catton's talk the society went into executive session, and the following doctors

were unanimously elected to membership: Henry G. Hanze and W. E. Johnson.

The following were then elected as officers for the ensuing year: H. E. Henderson, president; W. D. Sansum, vice-president; W. H. Eaton, secretary-treasurer; H. G. Hanze of Solvang, first vice-president-at-large; O. C. Jones of Lompoc, second vice-president-at-large.

The president appointed the following censors: F. R. Nuzum (chairman), Henry Ullmann, and Allen Williams.

The delegate and alternate to the state convention, serving for two years, and having been elected at the annual meeting of 1926, Doctor Ullmann, delegate, and Doctor Nuzum, alternate, were held over.

The state dues remaining the same, viz., \$10, it was duly moved, seconded and carried that the local dues remain the same for the ensuing year, viz., \$2.

The treasurer's annual report, showing a balance of \$32.62, was presented and ordered filed.

The following members paid their 1927 dues: W. H. Eaton, J. G. Ware, C. S. Stevens, G. S. Loveren, W. D. Sansum, P. C. Means, Kent Wilson, M. Williams, A. Williams, Benjamin Bakewell, A. Q. Spaulding, F. R. Nuzum, Rexwald Brown.

There being no further business the meeting adjourned.

WILLIAM H. EATON, *Secretary*.



STANISLAUS COUNTY

Stanislaus County Medical Society—On January 14, 1927, Thomas Floyd Bell of Oakland addressed the Stanislaus County Medical Society. A very interesting talk was given by Doctor Bell, who brought out many interesting facts in reference to fractures. He explained his ox-bone screws and plates.

After an interesting discussion, twenty-four members were entertained at a banquet at the Hotel Hughson. The officers who were installed following the banquet were, as follows: E. V. Falk, president; E. F. Hagedorn, vice-president; J. W. Morgan, secretary-treasurer; J. A. Cooper, censor for three years; C. E. Pearson, delegate; and E. F. Reamer, alternate.

J. W. MORGAN, *Secretary*.



TULARE COUNTY

Tulare County Medical Society—The regular monthly meeting of the Tulare County Medical Society was held at Motley's Café in Visalia. Dinner was served at 6:45 with but eight members present, consisting of the following: Doctors Preston, Ginsburg, Zumwalt, Hicks, Betts, Paine, Gilbert, Campbell.

Meeting was called to order at 8 o'clock by President Betts. The minutes of the last meeting were read and approved.

A communication was read from Dr. Mary R. Butin concerning the re-enactment of the Sheppard-Towner Bill, and the secretary was instructed to write to Doctor Pope, secretary of the State Association, for more information and the name of our representative to telegraph to.

Election of officers was held, and a unanimous ballot cast by the secretary for Elmo Zumwalt as president and J. C. Paine as vice-president. Horace Campbell was re-elected as secretary-treasurer, a unanimous ballot being cast by the president.

John Hicks was elected censor to hold office with Doctors Ginsburg and Preston.

I. H. Betts was elected as delegate, and Elmo Zumwalt as alternate.

Frank Kahn of Visalia was elected to membership subject to approval of the State Society.

B. H. Gilbert's transfer from the Siskiyou County Society to this society was accepted.

Copy of a letter from the Fresno County Society was read concerning the proposed Physicians and Surgeons Insurance Corporation, as well as a copy of the report of their own committee on industrial insurance. The secretary was instructed to get similar copies from the Fresno society if possible, and mail them to each of our members.

The secretary was also instructed to write to the county

librarian for a mailing list of all libraries of the county, and to then write to these libraries concerning their willingness to keep up their subscription to *Hygeia*, with which our society presented them last year.

Our next meeting was planned for the middle of January.

Meeting adjourned at 10 o'clock.

H. G. CAMPBELL, *Secretary*.

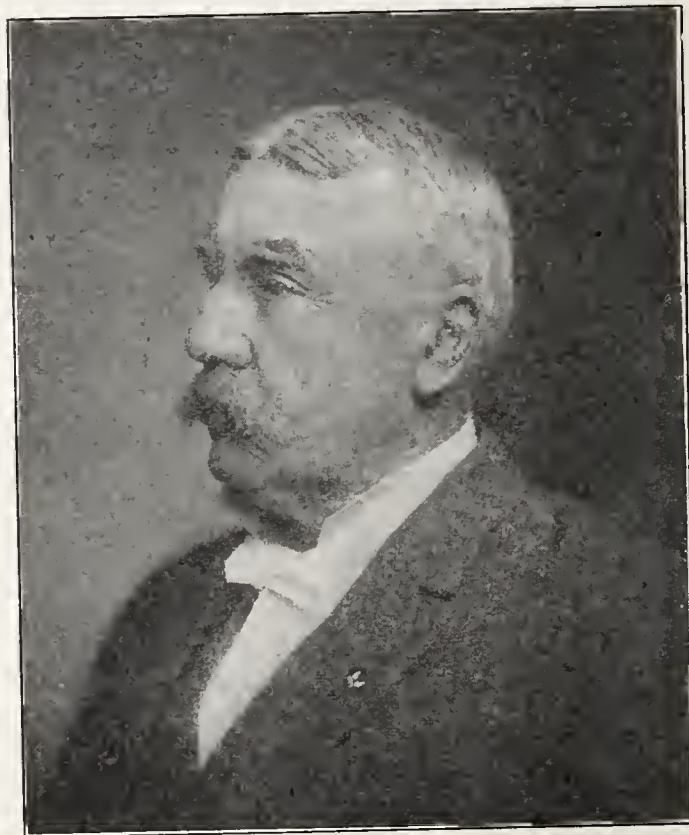
CHANGES IN MEMBERSHIP

Deaths—**Barbera, Eugene Howard**. Died at Oakland, December 27, 1926, age 36. Graduate of the Oakland College of Medicine and Surgery, 1918 and licensed in California the same year. Doctor Barbera was a member of the Alameda County Medical Society, the California Medical Association, and a Fellow of the American Medical Association.

Johnson, Abel William. Died at San Francisco, January 6, 1927, age 47. Graduate of Rush Medical College, Illinois, 1901. Licensed in California in 1904. Doctor Johnson was a member of the San Francisco County Medical Society, the California Medical Association, and a Fellow of the American Medical Association.

O'Brien, John Thomas. Died at San Francisco, December 27, 1926, age 63. Graduate of the University of California Medical School, 1896 and licensed in California the same year. Doctor O'Brien was a member of the San Francisco County Medical Society, the California Medical Association, and a Fellow of the American Medical Association.

OBITUARY



P. C. REMONDINO
1847-1926

On December 10, 1926, one of the most picturesque figures associated with the early general and medical history of San Diego passed on. Peter Charles Remondino, born in Turino, Italy, February 10, 1846, came to this country with his father in 1854, finally locating in Wisconsin, where he lived for several years. He began his medical studies at the age of 16 in the office of Dr. Francis H. Milligan of Wabasha, Wisconsin, who soon afterward was called to service in the Civil War. Early in 1863 he matriculated in Jefferson Medical College in Phila-

delphia. There he had exceptional opportunity for study, as the wounded were transferred from the front in great numbers to that city for treatment. In 1864 he volunteered his services as a medical cadet and was assigned to duty, first at Annapolis and later near Petersburg, Virginia. After seeing some service he was sent back to complete his studies, and was appointed acting assistant surgeon in the Union army immediately after receiving his degree. During the service which followed he acquired malaria in grave form and was discharged.

Several years in practice in Minnesota failed to cure this disease, and he decided to make a tour of Europe. There, when Napoleon III fell after Sedan, he offered his services to the French Republic, was commissioned captain in the medical corps and served till the end of the war, having many adventures and once being captured by the Germans, from whom he managed to escape. About six years ago he received from the government of France the much coveted *Medaille Militaire* "for heroic service."

After the Franco-Prussian War he traveled extensively over Europe, continuing his medical studies and making observations on climatology, in which line he was later to establish an enviable reputation. Returning to Wisconsin he found that he must still fight his old enemy, malaria, so he migrated to San Diego in 1873. "Rem," as we all affectionately dubbed him, used to show with much satisfaction as an advertisement of what the San Diego climate would do for a man a photograph taken when he arrived in San Diego. He then weighed 120 pounds and looked like a very advanced tubercular case. When he showed this picture to the writer he weighed about 200 and was distinctly rotund. Always a successful and popular physician and surgeon, he served the city and county in various public offices, and was at various times vice-president of the State Medical Society, president of the Southern California Medical Society and of the County Medical Society.

Doctor Remondino was a true bibliophile and an omnivorous reader. His memory was wonderfully accurate, and he could quote at length from almost any book he had ever read. He managed to accumulate probably the largest private medical library ever gotten together on this coast. In addition to this he had also one of the most extensive and exhaustive libraries on Napoleon I and on French history in the country. He used to show us many volumes bound in the old pigskin more familiar to the older medical practitioners than to the younger generation, all marked "Rem" across the back, remarking that every one of them represented a time when he went hungry to buy them.

His contributions to medical and lay literature were very extensive, many of them rendered authoritative by full quotations from the mass of information locked up in his great library. Probably his largest contributions were along climatological lines, but his book on Circumcision was undoubtedly most widely read, both by the profession and the laity. This work contained the results of much delving into the history of Phallic worship and was enlivened by anecdotes from personal experience and from the older writers which rendered it interesting to most readers. He was firmly convinced that all mankind would profit by a universal extension of the Jewish custom, and he performed the operation so generally that we came to know it locally as Remondino's operation.

For about two years he edited the *National Popular Review*, a monthly journal of preventive medicine published in Chicago, although he did his work in San Diego. In writing he was given to long sentences which were, however, never involved, and he had a gift for the choice of appropriate words which gave his satire, in which he indulged largely, a sting peculiarly his own. It so happened that Dr. T. A. Davis, probably our best-loved practitioner of medicine in San Diego, had died shortly before the acceptance of the editorship of the *Review*. Doctor Remondino had conceived the idea that Doctor Davis had been shabbily treated by a brother practitioner, whom he dubbed "The Prodigy." So he devoted at least one editorial a month to excoriating "The Prodigy," whom he had detected in some errors of diagnosis, at least one of which had resulted fatally. Both the laity and the profession read these really artistic editorials with much

gusto, whatever they may have thought of the righteousness of Doctor Remondino's contention.

Doctor Remondino's *magnum opus* is a history of medicine from the earliest times, to which he has devoted much of his time for the past forty-five years. He left the work unfinished, but with notes and the accumulation of data which would make its completion possible in comparatively a short time should it seem advisable. The extent of his reading and his industry may be gauged by the fact that he calculated that the completed work would fill seventy volumes, certainly the most extensive work of the kind ever undertaken. Most of the data for the work is contained in Doctor Remondino's private library. The card index which he has prepared as the work grew now fills five large filing cases. The plan was to treat the history of medicine both topically and chronologically so that a cross-reference index would put at the disposal of students the whole of any subject studied almost at a glance.

Possibly as a forerunner of this work, or as a result of these studies, Doctor Remondino built up a very extensive collection of arms, it being almost complete in exemplars of every form of firearm ever used in United States forces. He was also a lover of, and a patron of art, and accumulated a collection of paintings of much value. Aside from medicine he found time to write extensively on Napoleon I and on art.

Coming to San Diego at so early a date, Doctor Remondino soon acquired a very large practice, which he held as long as he was physically able to attend to it. It is a curious commentary on the methods of those early days that When Dr. T. L. Magee, who is still actively practicing medicine at the age of 90 and attending to his duties as secretary of the local United States Pension Board, came to San Diego in the early eighties, he was waited on by one of the three regular practitioners who had corralled about all of the local practice with the warning that the field was fully covered and that it would be much healthier and more agreeable for him to hunt another abiding place.

Doctor Remondino was always of a happy disposition so far as we who associated with him could discern, and his pet admonition to all patients "keep cheerful" came to be a byword not only in San Diego, but far up the state. He was almost universally popular, and his death has left a gap in the old guard which is keenly felt. He continued in active practice until about two years ago, when a slight cerebral hemorrhage and complicating cardiac trouble forced him to bed, which he was never able to leave. Even then his mind cleared perfectly, and we always found him with his table piled high with books and continuing his literary work unremittingly.

FRED BAKER.

Lateral Views of Heart and Aorta—Samuel Brown and H. B. Weiss, Cincinnati (*Journal A. M. A.*), have made a study of the heart and aorta and their relationship to the thorax in the lateral view. It appears that the position of the heart in the lateral view of the thorax is oblique. The configuration of the heart shadow is oval. Changes in the volume of the heart and of the individual chambers can be recognized. The heart is located in the anterior half of the thorax. There are two transparent triangles due to lung tissue, one situated in front and one in the back of the heart. There is definite relationship of the heart to the aorta, and of the heart and aorta to the thorax. Under normal conditions, the posterior border of the heart does not touch the descending portion of the aorta unless the heart is markedly enlarged. There is a definite relationship between the descending portion of the aorta and spine. Under normal conditions the descending portion is usually found in front of the anterior surface of the dorsal spine. In dilation or displacement, the aorta is found to overlap the bodies of the vertebrae with varying degrees. Also under normal conditions there is a constant relationship between the ascending portion of the aorta and sternum by the presence of the A-S transparent triangle. Alterations of this triangle will depend on the degree of dilation of the ascending portion of the aorta.

UTAH STATE MEDICAL ASSOCIATION

W. R. CALDERWOOD, Salt Lake.....President
 E. H. SMITH, Ogden.....President-Elect
 FRANK B. STEELE, Salt Lake.....Secretary
 J. U. GIESY, 701 Medical Arts Building, Salt Lake.....Associate Editor for Utah

COOPERATION

Never more than now, when none save only a superman surely could aspire to completely "knowing his onions" in this medical world of ours which has so rapidly expanded its borders to an almost empirical degree, has the need for cooperation between the workmen of the medical field been more manifestly stressed. Never has the need of specialization been more justified or the need of friendly and helpful cooperation between each group of each special field been more indicated both for the good of the patient and for the good of the profession at large.

Today the handling of any patient beyond those in each class, or of the simplest nature, comes more and more to smack of the fulfilling of a contract involving the skilled knowledge of craftsmen of various sorts. We don't mean that one with kidney trouble necessarily needs a plumber or the one with intestinal diseases a subway engineer. But we do mean that what is very, very often needed is skilled "piece work" in order that the end result may be complete.

And here is where what we mean by cooperation comes into the picture, or *should*. To our mind, that physician who first serves the patient stands very much in the position of the man who takes a contract to finish a job. His is the general conception of what should be done, and his is the contract really. But he may let subcontracts to enable him to have certain details attended to by specially trained men. And here is exactly where the specialist comes in. His the task of taking the referred patient and not only giving him the special attention needed, but of coordinating his efforts with those of the referring physician and of safeguarding the interests of that man by seeing that the patient is made to feel that his physician has worked for his best interests in calling in special help for a special purpose, and seeing also that the patient returns to the referring physician so soon as the special need or emergency has been met.

This to our mind constitutes a high grade and a much-to-be-desired grade of cooperation. The specialist should never forget that in referring a patient to him for his attention the referring physician has paid him the highest possible compliment. Certainly then in common courtesy, if from nothing else, he owes him a return in so conducting himself as to merit his continued respect and trust. And certainly the last thing in which he should permit himself to indulge is any criticism to the patient of his doctor's care of him. If there is criticism, which he in his special knowledge feels to be warranted, let him in all fairness and decency take it up with the physician and discuss it with him on a friendly

basis, for the best interests of the two of them, and to the advantage of the patient who has placed his welfare in the hands of both.

If some such basis of mutual seeking for mutual advantage could be built up we cannot escape the feeling that both the profession as a whole and those suffering individuals whom they must necessarily handle would profit in a degree untold. And we cannot help but feel that we are marching steadily toward just this ideal, or a great and gratifying joy that this should be the truth.

A THING OF BEAUTY

January first marked the official opening of the new Medical Arts Building on South Temple Street. In a sense this is an epochal date. Not only is this the first strictly professional office building in Salt Lake City, but also if, as has been so often said, "a thing of beauty is a joy forever," then certainly the new Medical Arts should prove a huge success.

As one who has been privileged to become one of its tenants I have been struck from the very first by the spirit of friendship and good fellowship and courtesy which seems to hang about the place. Moving-in day was very much like a holiday picnic for a bunch of kids. Everybody was on his toes. Everything was more or less scrambled of course. Things weren't clicking just as smoothly as they might have. Here and there a fuse burned out, here and there some overenthusiastic plumber turned off the water just when somebody wanted to use a wash bowl, but nobody cared—they just laughed. They'd tied a can on the grouch. It was all in the day's work. They were in a sort of celebration move—kids with a new toy, if you can see the picture.

And then the visiting started. Everybody was running into everybody's suite. Everybody was looking over everybody else. Everybody was shaking hands and saying a cordial word. In fact, as the society writers put it, "an enjoyable time was had by all," not merely figuratively, but in actual fact.

And so the beautiful new structure was given a good send-off, because there actually is a sort of personality about buildings even as about folks. And if an edifice such as this can be sent off tuned, as it were, to this happy frame of mind, then surely that same spirit of cordiality should continue to dominate its subsequent vibration—should militate to its future success. The medical world of Utah and Salt Lake may well be proud of this first structure of its class within the state.

Utah News—The annual election of the Holy Cross Hospital Clinical Association held in December resulted in the selection of Sol G. Kahn, president, and J. U. Giesy, secretary for the ensuing year. An informal talk-fest and smoker followed the regular business of the evening. Adjournment was to January 17, at which time the program consisted of a "Review of Current Medical Literature" by Fred L. Peterson, and a report of "Two Cases of Edema" by Fuller Bailey.

We note with pleasure and congratulations the return of W. R. Tyndale from the coast with his bride. The marriage ceremony was performed in Los Angeles, after which the newly wed couple spent some time in San Diego. The profession extends its best wishes for the future to Doctor Tyndale and wife.

John Z. Brown and his Committee on Scientific Pro-

gram have begun preliminary work on the arrangement of the program for the next State Association meeting. Tentatively the state meet will be held in June, and it is hoped that a splendid program may be worked out with the cooperation of physicians from various sections of the country who will be coming through Salt Lake at that time.

The officers of the Utah State Association paid an official visit to the Box Elder County Medical Society, upon the invitation of the latter at the regular February meeting.

For the information of all county secretaries who may feel moved by a spirit of cooperation to avail themselves of past invitations to report the proceedings of their societies or any news of medical interest within their medical fields, we wish to announce that the new address of the editorial offices of the Utah section of CALIFORNIA AND WESTERN MEDICINE is: Suite 701-2 Medical Arts Building, Salt Lake City, Utah. We sincerely hope they will give us something to print concerning their local activities within the next few months and then, having got the habit, go right ahead reporting from month to month.

Salt Lake County Medical Society (M. M. Critchlow, secretary)—The annual meeting of the society was held at the Commercial Club, Salt Lake City, Utah, December 13, 1926, called to order at 8:10 p. m. by President F. H. Raley. Fifty-five members and four visitors were present.

Minutes of the previous meeting were read and accepted without correction.

President F. H. Raley read a report in which he thanked the members for their cooperation during the year, and made recommendations for the future.

Treasurer's report was read by Joseph E. Jack.

Secretary's report was read by M. M. Critchlow.

A verbal report for the Medico-Legal Committee was given by James P. Kerby.

L. E. Viko read a report for the Community Clinic Committee.

Fred Stauffer read the report of the Building Committee.

Sol C. Kahn read the report of the Committee on Public Health and Legislation.

Report of the Library Committee was read by W. R. Tyndale, who recommended that the dues of the society be raised so that the Library Committee could receive \$5 per year per member.

E. D. Hammond read the report of the Committee on Necrology and paid tribute to George E. Robison, S. H. Pinkerton, and S. H. Allen.

John Z. Brown moved that the society be authorized to reimburse J. P. Kerby for funds paid by him for a banquet. Seconded and carried.

F. K. Root read a report for the Dental Banquet Committee in which he outlined tentative plans for the banquet. R. T. Richards moved that the report be adopted and that the committee be authorized to carry out the plans as outlined. Seconded and carried.

The Chair appointed an Auditing Committee, members of which are: G. N. Pace and T. A. Flood.

Communications were read from Mrs. S. C. Baldwin and the Salvation Army.

The following applications for membership were read: W. L. Smith, W. T. Sheets, and V. Lindsay.

The following officers were unanimously elected to serve during the year 1927:

W. G. Schulte, president; W. F. Beer, vice-president; M. M. Critchlow, secretary; Joseph E. Jack, treasurer. Censor to serve three years: F. H. Raley.

Adjournment at 9:15 p. m., after which an informal smoker and luncheon was held.

A regular meeting of the Salt Lake County Medical Society was held at the Commercial Club, Monday, January 10, 1927, President W. G. Schulte presiding. Thirty-seven members and three visitors were present.

Minutes of the previous meeting were read and accepted without correction.

No clinical cases were presented.

The first paper on the scientific program was entitled "Health Work in the Public School" by Sam G. Paul.

He explained the purposes of the examination of school children, described the usual defects noted, the measures taken for their correction and the beneficial results which follow. He outlined the work carried on in the Pre-School Clinics and stated his views on allowing the physically unfit to enter athletics.

His paper was extremely interesting, and was discussed by Sol G. Kahn, G. N. Curtis, T. B. Beatty, and John Z. Brown.

The second paper was on "Quarantine Regulations" by W. A. Pettitt. He urged the cooperation of the physicians with the Board of Health, stated the present city and state quarantine regulations and made recommendations for changing the regulations especially in some of the minor contagions.

This interesting paper was discussed by T. B. Beatty, Willard Christopherson, A. A. Kerr, William T. Ward, John Z. Brown, G. N. Curtis, and W. F. Beer.

The following men were unanimously elected to membership in the society: Walter T. Sheets, A. Van Lindsay, and W. LeRoy Smith.

Applications for membership were read from the following men: Joseph F. McGregor, O. J. LaBarge, W. Lawrence Montgomery, R. I. Burns, and H. Christopherson.

A communication from the State Dental Association was read.

NEVADA STATE MEDICAL ASSOCIATION

W. L. SAMUELS, M. D., Reno.....President
HORACE J. BROWN, M. D., Reno.....
.....Secretary and Associate Editor for Nevada

The President of the Association has appointed the committees for the ensuing year, as follows:

Membership—A. C. Olmsted, P. De M. McLeod, Halle L. Hewetson.

Judicial—M. A. Robison, E. E. Hamer, R. A. Bowdle, C. W. West, W. L. Howell, J. W. Gerow.

Scientific Work and Program—V. A. Muller, H. A. Paradis, William H. Brennen.

Necrology—T. W. Bath, J. E. Worden, D. L. Shaw.

Entertainment—S. K. Morrison, B. H. Caples, D. A. Turner.

Public Health and Education—M. R. Walker, Mary H. Fulstone, W. A. Shaw.

Military Affairs—The president, vice-presidents, and secretary.

Diseases of Eye—Anne De Chenne, J. A. Fuller, J. L. Robinson.

The Council is composed of the following: G. L. Dempsey, W. L. Howell, J. C. Cherry, C. E. Swezy, J. H. Hastings, D. A. Smith, A. Huffaker, P. W. Robinson, Halle L. Hewetson, J. R. Eby, William H. Brennen, G. L. Belanger, J. T. Rees, C. J. Richards, F. M. West, H. L. Dalby, M. J. Rand.

News Items—Dr. George R. Smith of Ely has been appointed superintendent of the Nevada State Hospital for mental diseases, succeeding Dr. R. H. Richardson, who resigned in December and has gone to Porto Rico to spend several months.

Dr. S. L. Lee, Carson City, who has for many years been secretary of the State Board of Health, and State Board of Medical Examiners, died at his home in Carson City, January 12, from heart disease, age 82 years. Doctor Lee graduated from the Eclectic Medical Institute at Cincinnati, Ohio, in 1870, came to Nevada the same year and has been in constant practice in Nevada since that time.

John B. McCann, Tonopah, is reported to be suffering from pneumonia.

George L. Servoss, Reno, has been appointed county physician and health officer for Washoe County.

E. E. Hamer, Carson City, has been appointed secre-

tary of the State Board of Health, to succeed S. L. Lee, deceased.

At the December meeting of the Washoe County Medical Society J. A. Fuller of Reno was elected president, B. H. Caples, vice-president, and A. J. Hood, Reno, secretary-treasurer.

Calcium Chloride and Carbon Dioxide Content of Venous Blood—The calcium chloride and carbon dioxide content of venous blood in cases of gastroduodenal ulcer treated with alkalis was studied by Sara M. Jordon, Boston (*Journal A. M. A.*), in one hundred cases. Although very large amounts of alkalis were administered over a prolonged period, the patients being under close observation for from six to twelve months, no untoward symptoms were observed. It therefore became a matter of interest to determine to what extent, if at all, the acid-base equilibrium of these patients was disturbed. Forty-one cases of ulcer and ten normal cases were studied over a period of three weeks, the ulcer cases at the beginning of their management according to the Sippy method, the normal persons at their usual activities, and ingesting no alkalis not contained in their usual diet. The diagnosis was made in each case by the history, laboratory and roentgen ray examination after a period of at least three days' observation in the hospital. All the patients made satisfactory clinical progress without signs of alkalemia. In such cases the average level of plasma chloride of venous blood is lower by 23 mg. per hundred cubic centimeters than the normal, and the average variation in individual cases greater. The average level of carbon dioxide content is higher by 2.7 per cent by volume than the normal, and the average variation in individual cases greater. The average level of serum calcium content and the average variation in individual cases is approximately the same as normal. It is suggested by the estimations made that the acid-base equilibrium is at first somewhat disturbed by the influx of alkalis, but within a few days levels of chloride and carbon dioxide content which approach normal are reached, and in the large majority of cases there is no chemical or clinical disturbance due to alkalosis. In the small percentage of cases that show clinical signs of alkalemia the carbon dioxide content shows a marked rise; the calcium content tends to rise, and the plasma chloride to diminish. The level of carbon dioxide content at which symptoms appeared in these cases is 70 per cent by volume (a combining power of approximately 80). The possible occurrence of alkalemia, with onset as late as several months after the beginning of treatment, makes it necessary to keep patients who are using alkalis under observation. It is suggested that a minimum dosage of alkalis necessary for neutralization be established in each case.

Fractures of Ankle Joint and of Lower End of Tibia and Fibula—Edgar Lorrington Gilcreest, San Francisco (*Journal A. M. A.*), reviews the fundamental principles to be kept in mind in the treatment of fractures of the ankle joint and of the lower end of the tibia and fibula, and describes the method of treatment to be used in the various types of fractures in this region. He says that the aim of all therapy should be to expedite complete recovery of function. The chief requisite for good healing and satisfactory function in fractures always has been, still is, and always will be, early and exact reduction. Active and passive movements of small amplitude of the knee and ankle must be begun without much delay. The patient's mind should be focused on the joint and muscles, and he will thereby tone up the leg by sending down voluntary nerve impulses. Heat and gentle massage can do nothing but good. One should not overlook protecting the fracture for a few weeks when the patient begins to walk and to maintain the inversion of the foot. Consolidation is often not complete when it is thought to be, and protection at this time will prevent shortening. The causes of unsatisfactory results of fracture treatment, particularly those of the lower end of the tibia, are that too little attention is still given to the consideration of the anatomy and physiology of the part.

NEWS

California Medical Association—1927 Meeting, Los Angeles Biltmore, April 25 to 28—The local committee of arrangements for the Los Angeles meeting of the California Medical Association, which will be held at Los Angeles commencing Monday, April 25, through Thursday, April 28, inclusive, is actively at work on the general arrangements and on the entertainment program.

The local committee consists of William Duffield (chairman), William H. Kiger, Harlan Shoemaker, Albert Soiland, Wayland Morrison, and George H. Kress.

Ex-officio members are W. T. McArthur, president of the California Medical Association, and Clarence Toland, president of the Los Angeles County Medical Association.

President McArthur reported upon correspondence with leading physicians and surgeons in the East, several of whom it is hoped to have present at this meeting. It is aimed to have the general meetings of great interest to all, and the notables whom it is desired to bring to Los Angeles should be an increased attraction for all members to attend.

The scientific exhibit will be cared for by a subcommittee of which William H. Kiger will be the head. Kiger also reported upon the halls for the different sections of the society.

The chairman of the subcommittee on finances is Wayland Morrison.

Entertainment features will be handled by a committee of which George H. Kress is the head.

The entertainment of the visiting ladies will be looked after by a women's committee to be announced later, with Mrs. W. T. McArthur as chairman.

The commercial exhibit will work through a special subcommittee consisting of William R. Molony, Harry Martin, and James M. Conerty.

Publicity will be handled by William Duffield and George H. Kress.

President W. T. McArthur announces that he will give a cup to the winning physician in the golf tournament. He also announces that he will give prizes to the best dancers at the annual dinner and ball.

The Los Angeles committee, acting in the name of the Los Angeles County Medical Association, will make a special endeavor to have this meeting one that will be long remembered by the members of the California Medical Association. The members of the committee are using their best efforts to give the visiting members the best of comfort and entertainment, and it is hoped that a large number of the members of the State Association will avail themselves of this special invitation to visit Los Angeles, which is now a city of 1,260,000, and which will probably be a metropolitan center of 2,000,000 or more before another meeting of the California Medical Association convenes in Los Angeles.

University of California Medical School News—Professor Henri Fredericq of the University of Liege will be in the United States during the first four months of 1927 as a visiting professor from Belgium under the auspices of the C. R. B. Educational Foundation. Professor Fredericq is head of the Department of Physiology at the University of Liege. His biography is, as follows:

1887: Born at Liege, Belgium; 1908: Aide Preparateur in Physiology, Liege; 1912: Doctor of Medicine, Liege, Assistant in Physiology; 1914-19: Enlisted in the Medical Corps of the Belgian Army, service in a fort at Liege, on the Yser front, at the Ocean Hospital with Dr. A. Depage, Cabour Hospital with Dr. P. Nolf, and the Military Hospital at Liege. Served in the army for the duration of the war; 1919: Charge de Cours, University of Ghent; 1920: Professor, University of Ghent; 1921: Professor of Physiology, University of Liege; director of the Institute of Physiology, Liege.

Doctor Fredericq will deliver the following lectures at the University of California Medical School during February:

On February 14 and 15, Doctor Fredericq will give lectures at the University of California in Berkeley, under

the auspices of the Department of Physiology of the Medical School. These lectures will be on the subject of "The Chronaxy."

On February 16, Doctor Fredericq will deliver a lecture at the University of California Medical School in San Francisco, in Toland Hall, University Hospital, at 11 a. m., on the subject of "Interpretation of the Deflections of the Physiological Electrocardiogram." This lecture will be open to the public.

On the evening of February 16, Professor Fredericq will give a lecture before the University of California Chapter of Sigma Xi, at the University of California in Berkeley, on the subject of "Humoral Transmission of Nervous Action."

Death of Dr. Walter I. Baldwin—Walter I. Baldwin, clinical professor of orthopedic surgery at the University of California Medical School, died on November 28, 1926, in Santa Barbara, after a long-continued illness.

Doctor Baldwin received the degree of Bachelor of Science from the University of California in 1907 and that of Doctor of Medicine in 1911. Immediately upon graduation he entered the University of California Hospital as an intern. In 1913 he joined the faculty as an assistant in orthopedic surgery and was promoted to the grade of instructor in 1915. He was raised to the grade of assistant clinical professor of orthopedic surgery in 1920, and to that of clinical professor in 1925.

In addition, he was an intern in orthopedic surgery at the Massachusetts General Hospital in 1912. During the World War he was consulting orthopedic surgeon, American Expeditionary Forces, and later, senior resident orthopedic surgeon, Edinburgh War Hospital.

He was consulting orthopedic surgeon, Southern Pacific Hospital, from 1922 until his death and also surgeon-in-chief of the Shriners' Hospital for Crippled Children from 1923 until his death. He was a member of the American Orthopedic Association.

Stanford University School of Medicine Introduces Departmental Examinations—"By action of the faculty," writes Dean William Ophüls, "it was decided that in the Medical School at San Francisco departmental examinations be substituted for individual course examinations. Each departmental head is to be required to make arrangements for the keeping of records of the attendance of students at the individual courses in his department and of such records of the progress of students in the individual courses as may seem desirable. These records shall be kept on file in the office of each departmental head, and from them reports on the attendance of the students in the individual courses shall be made to the dean's office whenever desired.

"If a student wishes to transfer to another medical school, he shall be entitled to an examination in any required course completed that has not been covered by a departmental examination.

"The character and scope of the departmental examinations shall be determined by the departmental faculties. In arriving at the final grade in departmental examinations the character of the work of the student in individual courses may be taken into account.

"Under the new rule of the faculty formal examinations shall be held, as follows:

At the end of the second year: medicine, introductory; surgery, introductory; obstetrics and gynecology, introductory.

At the end of the eighth quarter: public health and preventive medicine; pharmacology.

At the end of the third year: pathology; internal medicine; surgery; gynecology.

At the end of the tenth quarter: obstetrics.

At the end of the fourth year: medicine and medical specialties, including pediatrics, neuropsychiatry, dermatology, radiology, physiotherapy; surgery and surgical specialties, including orthopedic surgery, genitourinary surgery, otorhinolaryngology, ophthalmology.

"The examinations at the end of the fourth year should be of a very general nature and should cover all aspects of a given problem presented.

"Nothing in these regulations shall be construed as preventing any instructor to give such tests in regard to the progress of the students in his courses as he may think necessary. These tests, however, must be arranged for during the regular hours of the course."

The Pacific Coast Surgical Association will hold its second annual meeting at Del Monte, Friday and Saturday, February 25 and 26. Officers: Stanley Stillman, San Francisco, president; Ernst A. Sommer, Portland, first vice-president; W. D. Kirkpatrick, Bellingham, Washington, second vice-president; and Edgar L. Gilcreest, San Francisco, secretary and treasurer.

PROGRAM

Friday morning, 9 o'clock—President's address, Stanley Stillman, San Francisco; "Diverticulum of the Esophagus," C. T. Sturgeon, Los Angeles; "Treatment of Acute Perforations in Peptic Ulcer," A. O. Loe, Seattle; "Congenital Pyloric Stenosis," Alanson Weeks, San Francisco; "Invagination Ileus in Polyposis of Small Intestine," Rexwald Brown, Santa Barbara.

Friday afternoon—Golf and motoring.

Friday evening, 8 o'clock—"An Old Problem," Ernest F. Tucker, Portland; "Inductive Reasoning in Medicine," Charles E. Phillips, Los Angeles; "The Advantages of a Complete Thyroidectomy," Phillip K. Gilman, San Francisco; "Adenomata of the Thyroid," Wallace I. Terry, San Francisco; "Iodin in the Management of the Goiter Patient," Clarence G. Toland, Los Angeles.

Saturday morning, 9 o'clock—Executive session; "Dermoid Cyst of the Mediastinum," Samuel L. Caldbick, Everett, Washington; "The Mechanical Factor in the Causation of Choked Disc in Intracranial Lesions," George W. Swift, Seattle; "The Differential Diagnosis of Abdominal Pain in Lesions of the Kidneys and Ureters," Frank Hinman, San Francisco.

Saturday afternoon—Golf and motoring.

Saturday evening, 7 o'clock—President's dinner.

Clinics will be held in San Francisco two days previous to the Del Monte meeting.

For further information address Edgar L. Gilcreest, Fitchburg Building, San Francisco.

At the annual dinner of the Southern California Medical Golf Association the following officers were re-elected for the ensuing year: W. H. Kiger, president; Clarence G. Toland, vice-president; and C. Hiram Weaver, secretary and treasurer.

Sixty-four members participated in the golf tournament preceding the dinner. Wallace Dodge was the low gross winner in Class A with an 85. J. W. Crossan took the low net prize with 89-14-75. In Class B the low gross winner was E. P. Clark with 92, and the low net victor was H. W. Spiers with 102-24-78. A special prize offered to the player with the most "sevens" on his card was taken by Clarence G. Toland, who had eight of them.

The yearly trophies awarded the winners were presented by Kiger, Toland, Waddell, and the Horton and Converse Pharmacy.

The American College of Physicians will hold its eleventh annual clinical session in Cleveland, Ohio, February 21-25, 1927. Alfred Stengel of Philadelphia is president and John Phillips of Cleveland is the chairman of the Program Committee. The program will be of unusual interest to physicians (including neurologists, pediatricists, roentgenologists, pathologists, dermatologists, psychiatrists, and others engaged in the field of clinical medicine). The Cleveland hospitals and the Western Reserve University will cooperate with the College in the presentation of the program.

During the mornings there will be clinics and demonstrations at the various hospitals and in the laboratories of the Western Reserve University. During the afternoons papers on various medical topics will be delivered by local members of the profession and by members of the College from other parts of the United States and Canada. During the evenings there will be formal addresses by distinguished guests and by the president or other representatives of the College.

The American College of Physicians is a national organization in which physicians may find a common meeting ground for discussion of the special problems that concern them and through which the interests of medicine may have proper representation. Membership in this organization is limited to those in the field of medicine, as distinguished from surgery. While it is not a limited national society of specialists (mostly prominent medical teachers), it is not co-ordinal with large national or sectional organizations of physicians requiring no special professional qualifications. Its standards are high and many men of distinction in the profession are numbered among its members.

An invitation has been extended by the College to all qualified physicians and laboratory workers to attend the Cleveland clinical session. An attendance in excess of 1500 is anticipated.

The Sofie A. Nordoff-Jung Prize for the best contribution in Cancer Research during the past year has been awarded to Dr. Otto Warburg, director of the Department of Biology of the Kaiser Wilhelm Institute, Berlin-Dahlem.

The novel methods of investigation developed by Professor Warburg have opened reliable channels for tests on the metabolism of surviving tissues under varying conditions. With a singular predetermination he has made available an abundance of valuable material through comparative experimentations on the processes of disintegration and oxydation of normal tissues, and neoplasms. His biochemical attack on the cancer problem presages the most promising results.

Professors Borst, Doederlein, von Romberg, and Sauerbruch, all of the University of Munich, form the awarding commission.

Popularizing Medical Information—The how, why, what and by whom of popular medical information has been made a nation-wide controversy of the first magnitude and importance in England, as is indicated by the following abstracts prepared by Ivy Lee and associates from a few leading English newspapers. These discussions are passed on to our readers because the solution of the problem lies in the hands of physicians and their organizations. It may not be ignored, unwisely handled nor misdirected by the physicians of the United States.

The Manchester Guardian reviews an address by Sir Thomas Horder on who considered the question under the heads: Is it desirable that we should give the individual citizen information on health matters, and, if so, what sort of information, who should be responsible for it, and through what medium should it be given?

As to the first point, he said there seemed to be a consensus of opinion that it was desirable. The second point he found more difficult. "That," he continued, "may be because I am not an apostle of any doctrine that I have an itch to preach, and because I know from experience that health is an adjustment of so many factors, having quite different values in different individuals, that it seems to be entirely unlikely that particular prescriptions can ever be universally useful."

"I therefore think that maxims drawn up for guidance in personal hygiene should be few and brief, embodying general principles and avoiding particulars. How can they deal in particulars with any hope of success, since they go to all and sundry, to the young and to the old, to the fat and to the lean, to the blonde and to the brunette, to the tall and to the short, to the phlegmatic and to the sanguine, to the asthenic and to the sthenic?"

"I do not think instructions to the public on health matters should aim at embodying the latest theories in pathology or in therapeutics. Rather do I think that such instruction should always be kept high and dry from theories, however attractive. This requires an exercise of forbearance not possible with all of us—a reflection which leads me naturally to my next question."

"For the news I suggest that the medical journalist and 'our medical correspondent,' who is, of course, chosen because he is a journalist, are the best persons to do the writing. But I think the interest of the public is best served by all articles and paragraphs, and books also, being controlled by experts whenever they deal with actual diseases and their treatments."

"The experts at the Ministry of Health would, I am sure, be willing to 'vet.' such articles. But the public is chary of Government departments and officials in things like these. It should not be difficult to arrange some even more representative body, the names of whose personnel might be published from time to time, so as to assure the public that it was a body competent for the purpose in hand."

"Laymen should, I think, sit on this committee. I

favor the presence of laymen on all councils and committees that have to do with health questions and the public. . . .

"When we come to actual matters of health instruction—the preparation of maxims, for example—I am quite sure that control by some responsible body is essential to the public interest. The laymen would naturally leave the technical points to their medical colleagues. . . ."

Referring to the question through what channels and by what methods should health education be given, Sir T. Horder said the lay press was certainly the most powerful medium we possessed for instructing the public on health matters. They must do their utmost to secure the cooperation of the proprietors and editors of those journals that influence the thinking public.

"What we should like the editor to do is to pick the same sort of man that he picks when he is ill, because we must remember—and the fact is pertinent—that the editor's doctor is not a publicist, nor does he hold peculiar views. He is just an ordinary practitioner like ourselves; he does not know the exact cause of cancer. Indeed, he is the sort of man the conscientious editor—for such persons exist—rings up when he wants to be assured that 'the eminent physician,' or 'surgeon' or his own 'medical correspondent' is not trying the reader's credulity too far."

"The important point was that there would be the chance of an authoritative 'Health column,' reading of which the thinking subscriber to the journal might know that what it contained was endorsed by the censoring body. But the lay press must not clamor for the signed article by men in active practice. They would get it; they did get it; but they should leave it to the good taste of the doctor to refrain if he chose."

The same newspaper in a later issue says: "Reference to the question of doctors engaging in public health propaganda was made recently at the Royal Institute of Public Health by Dr. E. G. Graham Little, M. P."

"There is a very important movement going," said Doctor Little, "to educate the public in such problems, and I have myself taken a hand upon the methods by which this education should be conducted. I have been quite wrongly represented as opposing the movement. What I have opposed, and what I intend to continue opposing, is the slipshod, ineffective and sometimes even ludicrous attempts to shower upon the public the mere crumbs from the rich table of medical science."

"I submit that to be of any value, the knowledge thus offered should come from real experts in the particular branch of medicine upon which advice is given, but I deprecate the essays in the obvious over the signatures of medical men which disfigure so many of the popular journals of today."

The following paragraphs from the British regulations concerning publicity by the medical profession are from Public Opinion, September 17, 1926.

"8. It is commonly agreed that channels must be open for discussion between members of the profession for recording the results of research and clinical experience and for bringing to the notice of other members books published and facilities for treatment offered."

"The recognized channels are medical societies, medical periodicals and works primarily intended for the medical profession."

"9. It is the recognized duty and right of a medical man to take his share as a citizen in public life, but there is no reason why this should involve any advertisement of himself as a doctor, and, with due care, improper advertisement can be avoided."

"10. Publicity is rightly allowed to medical men not in actual practice of their profession, since they cannot be regarded as using this publicity for the purpose of promoting their own professional advantage, and in view of the official position of Medical Officers of Health and other medical men who hold posts in either the public health or other public service, publicity is sometimes not only permissible but necessary for the fulfilment of their official duty. The presumption in all these cases is that publicity is not sought for the individual's own gain. . . ."

"11. The publication of books and the delivery of lectures on semi-medical topics which are of general public interest and require medical knowledge for their proper presentation have been recognized as legitimate, subject to the avoidance of methods which tend to the personal professional advantage of their authors."

"12. From time to time there are discussed in the lay papers topics which have relation both to medical science and policy and to the health and welfare of the public, and it may be legitimate or even advisable that medical practitioners who can speak with authority on the question at issue should contribute to such discussions."

"But practitioners who take this action ought to make it a condition of publication that laudatory editorial comments or headlines relating either to the contributor's professional status or experience shall not be permitted; that his address or photograph shall not be published; and that there shall be no unnecessary display of his medical qualifications and appointments."

"Discussions in the lay press on disputed points of pathology or treatment should be avoided by practitioners; such issues find their appropriate opportunity in the professional societies and the medical journals."

"The doctors are moving," relates the London Spectator. "It is evident that recent criticism of the rules and etiquette of the medical profession has had its effect. Doctors generally are admitting that more use must be made of publicity if we are to have a healthy nation. Half-educated people, and a good many well-educated people who happen to be careless, are unbelievably stupid about what Bacon called the 'regiment of health.' The only

way in which they can be approached and corrected is through the press. Therefore, somehow or other, instruction in how to eat and drink wisely, how to exercise and how to clothe the body, must be conveyed through the newspapers.

"All sensible people desire that the medical profession should keep to its noble tradition of reticence. If it is to retain respect and trust it must never resort to the cheap arts of personal advertisement. It must have strict regulations and customs in this matter, and we for our part shall always be inclined to forgive the doctors if they err on the side of pedantry in making their traditions secure. But it simply cannot be right that the nation should have a much lower standard of health than it might have in order that doctors may flatter themselves that their etiquette is untarnished. There must be something wrong with a system in which that happens."

Two prizes of \$50,000 each have been offered by William Lawrence Saunders of New York for discoveries of the causation, prevention and cure of cancer. The offer was made on December 15, 1926, and will stand for three years. The donor expects to renew it if necessary.

The decision upon which the awards will be made is to be reached by the American Society for the Control of Cancer and approved by the American Medical Association and the American College of Surgeons.

New Saint Joseph's Hospital of San Francisco is now almost entirely silhouetted against the heavens in steel, the last bolts being riveted during these days, as the boxes are built for the reception of the concrete and cement. Never was modern construction more fire or earthquake proof than it is in this seven-story, basement and subbasement "skyscraper," rising at scenic Buena Vista heights, where it will remain, as before, free from noise and smoke and only a few minutes from marts of commerce.

The units already contracted for will provide for nearly 300 beds for patients and the most up-to-date surgery, maternity, laboratory and other departments, as well as a new centralized kitchen, chapel and Sisters' home. The reinforced power house, laundry, and nurses' annex are already being used, and the present patients' rooms are to be maintained, without interference, until all the new units are completed, when the old structures will be demolished. This arrangement enables the entire present capacity to be kept at the disposal of the visiting doctors. The new structure will be completed this year.

Saint Joseph's Hospital staff met January 12, and after reviewing the work of the previous month witnessed a demonstration of a "Prosthetic or Artificial Nose" by Roy Parkinson. The patient had suffered luetic destruction of the nasal bones and septum with cicatricial occlusion of both anterior nares. Restoration consisted in a plastic of the right nasal opening, and extraction of teeth, an "Iteco" compound artificial nose riveted to the glasses, and an upper plate with an obturator to fill the cleft in the palate. The cosmetic and functional results were eminently satisfactory.

Dr. Adeline Cereghino Williams read a paper on the "Rôle of Women in Medicine," showing the general and special aspects of the profession where female doctors had won success. W. T. Cummins spoke on "Hospital Progress, Especially in Laboratories." A. S. Musante presented a case of "Operation Seven Days After Vesical Rupture with Recovery." Uterine fibroids, accompanied by difficulty in micturition, were operated upon and a large tear of the bladder of seven days' duration repaired successfully, although convalescence was stormy. Resolutions were adopted urging the doctors to cooperate in financing the new palatial home of the San Francisco County Medical Society.

The program for February 9 follows:

"A Two-Years' Trip Around the World," F. C. Keck, M. D.

At the Mount Zion Hospital staff conference Louis Clive Jacobs discussed calculi in urological tract illustrated by roentgenograms.

The importance of the subject to the surgeon was emphasized because of the frequency with which patients are subjected to unnecessary laparotomies. This results from a failure to properly investigate the urological tract.

Improved methods in roentgenology combined with

cystoscopy and laboratory investigation enable the urologist to be more accurate in his diagnosis than formerly.

From a study of 100 consecutive patients Jacobs concludes that the diagnosis is made by the history, urinary findings, physical examination, ureteral catheter, and x-ray. The greater problem is the treatment, surgical or nonsurgical, and depends on the location, size, accessibility, duration, kidney function, and the constitutional resistance of the individual. Where it is possible to remove a stone without a cutting operation, it is preferable. Two of the patients with vesical calculi were operated on suprapubically because of urethral contraindications to the lithotrite.

Litholapaxy was performed under local anesthesia, one a man of 83 and the other 28 years.

Stone in the ureter in the majority of the patients was removed by intracystoscopic procedure, aided by the ureteral dilators and forceps, facilitated by the injection of 3 per cent novocain nitrate.

Three of the patients had stones encapsulated in the lower ends of the ureters. It was necessary in these to resort to the cutting operation. In patients of this character it is preferable to cut down extraperitoneally, except in stout individuals, with a ureteral stone lying adjacent to the bladder wall when the method of choice is the intraperitoneal route.

The kidney pelvis is the most common location for stone, and pelviolithotomy is the operation of choice.

In about 40 per cent of these patients there is a concomitant pyelohydronephrosis which necessitates nephrectomy.

In bilateral nephrolithiasis, about 10 per cent of renal stones, operation should be performed on the better kidney first, but this is not always practical. In the case of kidney stone associated with constitutional diseases it is inadvisable to attempt removal.

John J. Sampson discussed angina pectoris. The nature and cause of this heart pain has been gradually clarified since Heberden first described it. Sir Clifford Albutt laid much stress on the aortic cause of angina, but White, Osler, Dock, and others have caused us to recognize certain types and correlate clinical findings with the pathological changes.

First. The classical aortic type of Heberden and Albutt, with rather sharp precordial pain produced by exertion and generally radiating down the left arm.

Second. The coronary type of pain, generally a crushing or pressure pain in the precordium or epigastrium with more variable type of radiation and frequently associated with congestive heart failure. It is produced not only with exertion, but also with nervous strain and exposure to cold.

Third. The lancinating, transient type of precordial pain with left arm radiation generally, occurring in those individuals with somewhat unstable nervous constitutions.

Fourth. The dull precordial ache of myocardial fatigue generally associated with dyspnoea and palpitation of congestive heart failure.

All these types are definitely associated with organic heart disease and are relieved by nitrates, if only transiently. Noncardiac precordial pain, frequently classified as pseudoangina, must be excluded. Such exclusion is ordinarily simple to obtain, but occasionally we are forced to use laboratory methods to assist us in diagnosing the presence of organic cardiac disturbances.

BITTER SWEETS

By JOHN J. GAYNOR, M. D.

(Dedicated to Colonel Ryder)

The beautiful flapper, the joy of the age,
A stimulus is to the hankering sage,
Who, neuter in gender, recalling the tune,
Regrets he was born a cycle too soon.
His bitter-sweet longings, his wish to enjoy,
Remains with him still; man is always a boy.
To match present with past, the gudgeon demands
A new implantation of endocrine glands,
And a stimulant diet, protein-free,
Of lettuce, oatmeal, bearing vitamin E.
But alas and alack! the zip of the boon,
Is as passé as a third honeymoon!

CALIFORNIA BOARD OF MEDICAL EXAMINERS

By C. B. PINKHAM, *Secretary*

According to the Santa Ana *Register* of December 14, 1926, "Rex H. W. Albrextondare, once nicknamed 'The Peapod Scientist' or 'Alfalfa Doctor' by jocular reporters because of his dietetic theories, . . . recently reported that he would have some startling and sensational disclosures to make at the time of his trial of a suit filed against him in Los Angeles County by Mrs. Jenny McFadden and her daughter, who seek to recover \$37,000 representing alleged loans to him. (Former entries "News Items," June, 1925, and March, 1926.)

A fine of \$100 was imposed upon Mrs. Mary Aston, who pleaded guilty to a violation of the Medical Practice Act, by Superior Judge T. W. Harris in Oakland.—San Francisco *Chronicle*, January 11, 1927.

Attorney-General Webb recently handed down an opinion that if an eastern firm is selling "ready-to-wear" glasses in California, it is violating the law. The opinion is based on the alleged procedure of representatives who are trying to sell glasses by fitting prospective customers and who later send the glasses by mail from the manufacturer. "The California Optometry Law is designed to protect would-be customers from the evil of harmful fitting glasses."

The 1926 Annual Report of the Board of Medical Examiners urges legislation to prohibit the use of poisons by beauty specialists, etc., in so-called face-peeling operations, citing several deaths in California which have resulted from the absorption of poisons during such procedure. Senate Bill 61 introduced in the present legislature proposes to create a board of cosmetology with power to license those engaged in the various branches of beauty specialties, etc., but does not prohibit the use of poisons in local applications.

Following the death of Sallie Lytton, alleged to have been due to a strong bichloride of mercury face-peel preparation used by her, several individuals were arrested in Los Angeles on a charge of violation of the State Poison Law.

The Los Angeles *Examiner* of January 11, 1927, relates that a charge of violation of the State Poison Law filed against Fannie Briggs Carr and P. G. Hughes, who were accused of selling a face bleach lotion containing bichloride of mercury, was dismissed, it being stipulated that the Fannie Briggs Carr Corporation pleaded guilty through their attorney, which resulted in a fine of \$250 being imposed. It is also related that Virginia Bates and Della Nell Lucas pleaded guilty to similar charges and paid fines of \$25 each.

According to the San Francisco *Examiner* of January 12, 1927, Percy Purviance, president of the Berkeley Chiropractic College, has renewed his fight against the Chiropractic Board by obtaining an order to show cause why said board should not be punished for contempt of court. "Last March Judge Murasky signed an injunction forbidding the board to investigate the operations or character of the Berkeley school. Purviance claims that this injunction has been violated."

As a result of a petition filed in the California Supreme Court, a ruling is in prospect which will determine the powers of the State Board of Chiropractic Examiners in the revocation of licenses. The petition was filed by C. H. Wood, Los Angeles chiropractor, whose license was revoked by the board November 20. He claims that the act creating the board and endowing it with certain powers, fails to set forth legally its jurisdiction and procedure in revocation hearings. The examiners in revoking Wood's license charged that it had been obtained by "fraud and deception."—Los Angeles *Times*, December 13, 1926.

The Board of Dental Examiners under date of July 20, 1926, issued a "Report of the Board of Dental Examiners of the State of California" which also contains a complete list of dentists licensed in California.

The Sacramento *Union* of December 30, 1926, related

the following changes in the personnel of the Board of Medical Examiners: Albert K. Dunlap, M.D., of Sacramento, vice Harry V. Brown, M.D., Glendale, term expired; William Geistweit, Jr., M.D., San Diego, vice John C. Yates, M.D., San Diego, term expired; James L. Maupin, M.D., Fresno, vice Junius B. Harris, M.D., of Sacramento, resigned.

According to the Los Angeles *Herald* of December 29, 1926, "Dr. Margaret M. E. Dunlap, Ocean Park physician, (was) held for preliminary hearing on a charge of issuing four fictitious checks totaling \$185." The records of the Board of Medical Examiners do not show any doctor by the name of Margaret M. E. Dunlap licensed to practice in this state.

Recent reports relate the reappointment of Edward F. Glaeser, M.D., of San Francisco, member of the State Board of Health, vice self, term expired.

Recent reports from Visalia relate the dismissal of the I-on-a-co representatives in that vicinity charged with violation of the State Medical Practice Act.

"The State Supreme Court Saturday denied application for a writ of habeas corpus made by attorneys for Dr. F. K. Lord of Ceres, convicted of a misdemeanor charge of prescribing more than the legal daily allotment of narcotics to a drug addict," says an Associated Press dispatch. "Doctor Lord was found guilty after trial in the Justice Court of W. H. Rice. He is out on bail" (Modesto *News-Herald*, December 12, 1926). (Prior entries in "News Items," March, May, June, July, and December, 1926.)

According to the Sacramento *Bee* of January 6, 1927, Mrs. Lena Mareck of San Francisco recently appeared before Police Judge Lazarus charged with performing an illegal operation.

L. G. Mein, Chinese herbalist, charged with practicing medicine without a license, entered a plea of guilty before Judge J. C. Needham yesterday and was fined \$200.—Stockton *Record*, December 30, 1926.

According to the Sacramento *Bee* of December 23, 1926, nine California doctors have been cited to appear before the Board of Medical Examiners at the next regular meeting, which will open in Los Angeles January 31.

A verdict of acquittal was brought in by the jury yesterday afternoon in the case of Y. Miki, charged with violation of Section 17 of the Medical Practice Act and tried in Superior Court before Judge J. F. Pullen.—Sacramento *Union*, January 13, 1927.

According to reports, E. J. Moloney of San Francisco was recently reappointed a member of the State Board of Pharmacy, a position which he has held for several years.

A sequel to the death last September of Joseph McManus, 6 years old, while being given an anesthetic on the operating table of M. James McGranaghan, chiropractor of 1171 Market Street, began yesterday, when the latter surrendered to the police on a warrant charging him with violation of the State Medical Practice Statute . . . (San Francisco *Chronicle*, December 28, 1926). (Prior entries, "News Items," November, 1926.)

The California State Board of Optometry recently issued a year-book giving interesting information regarding the operation of the board and containing a list of those licensed by said board.

A recent "Report on Drug Addiction in California by the State Narcotic Committee," Senator Sanborn Young, chairman, has come from the state printer, and is worthy of close study by the medical profession.

Recent reports relate the appointment of R. E. Conley, Sacramento druggist, as a member of the State Board of Pharmacy, vice E. T. Off of Los Angeles, term expired.

Dr. Paul Sandfort, whose medical and matrimonial affairs have been the basis of extended litigation, pleaded guilty yesterday in Alameda County Superior Court to violating the State Medical Law. The specific charge was practicing without a license. Sanfort was arrested a year

ago on charges sworn out by Mrs. Ange Stanke, Novato matron. Mrs. Stanke said she consulted him in his alleged self-advertised capacity of birth control expert and received a series of treatments. . . . (San Francisco *Examiner*, January 11, 1927.) (Previous entries "News Items," January, February, and May, 1926.)

Recent reports relate that Dr. A. J. Scott, Jr., of Los Angeles was reappointed a member of the State Board of Health, vice self, term expired.

Dr. William Shore, Ventura physician, was arrested for the second time in twenty-four hours when police raided his garage at 316 Oak Street today and seized ten gallons of alcohol. Shore pleaded guilty to a charge of violating the Wright Act yesterday after the sheriff's deputy raided his place and seized a quantity of booze. He paid a \$500 fine when he appeared before Justice of the Peace Malvern Dimmick. . . .—Ventura *Star*, January 6, 1927.

According to the Hanford *Journal* of December 8, 1926, A. Silva, charged with violation of the Medical Practice Act, was held to answer in the Superior Court.

Dr. Charles R. Spencer was arraigned today in the court of Judge Edwin Hahn on the charge of performing an illegal operation on Eva McArthur, 24-year-old typist, last September. In the course of her testimony at the recent preliminary hearing of the case, the young woman . . . declared that effects of the alleged operation left her partially and probably permanently paralyzed (Los Angeles *Herald*, December 21, 1926). There is no record that Charles R. Spencer is licensed to practice in this state, and we understand he is the same individual as Culver R. Spencer, mentioned in "News Items" of June, 1926.

"E. O. Tilburne, 332 East Colorado Street, Pasadena, agent for Wilshire's I-on-a-co, a health device, was bound over to the Superior Court on a charge of treating the sick without a license. . . . Tilburne called himself Doctor Tilburne unlawfully. . . . An electric belt, pamphlets, and newspaper advertising in which 'Dr. E. O. Tilburne' was named, were exhibited by the prosecution."

Pollen Toxemia in Children—The symptoms of this condition, according to I. S. Kahn, San Antonio, Texas (*Journal A. M. A.*), are: Frequent almost non-intermittent so-called colds dating from early infancy, which actually represent the mild type of hay fever so frequently seen in asthmatic children. Typical severe seasonal hay fever is unusual. Frequent attacks of bronchitis antedate the initial asthmatic attack. Infantile eczema is a common story. The family history almost invariably shows hay fever or asthma. The noses of these children are frequently in a state of prolonged obstruction with almost constant mouth breathing, resembling extensive adenoid growth. Removal of adenoids and tonsils in all these cases had not given relief. Nose picking and rubbing is a common story. The physical examination of these children shows deficient growth and weight, and backward mentality. The complexion is sallow or of a saffron tinge: on the whole, the condition decidedly resembles hereditary syphilis or hookworm infection. The nasal mucosa is typical of vasomotor rhinitis. The chest is barrel shaped, with marked emphysema and heavy generalized rale formation. Cardiac enlargement and murmurs are absent. The abdominal examination is negative. Eosinophilia is uncertain, while a lymphocytic increase is not unusual. The most remarkable result of this toxemia is psychic in character. The mentality is deficient, the condition resembling that of morons or idiots in severe cases. Languidness and listlessness are the rule, alternating with spells of intense temper and fury. These children are almost invariably extremely cross and irritable, resisting all handling, and crying on the slightest provocation. The appetite is poor and capricious, and nocturnal enuresis is common. Within a few weeks, or at times even days, following the institution of proper measures to control the vasomotor rhinitis by desensitization or pollen precautions, the entire picture changes. With improvements, but long before complete elimination of the hay fever and asthma, the complexion clears, appetite returns, and the general physical condition rapidly approaches that of the normal child of that age.

READERS' FORUM

The following letter from C. B. Pinkham, secretary Board of Medical Examiners, to the "Editor of The Stirring Rod" is self-explanatory and contains information of value to physicians:

San Francisco, California.

January 18, 1927.

Editor of The Stirring Rod,
300 Broadway,
San Francisco, California,

Attention
Mr. Sidney J. Wolfe

Dear Sir: The January 1927 issue of The Stirring Rod, on page 10, printed an article by G. D. Johnson, a Stockton druggist, assailing the doctors of California and particularly the Medical Practice Act, basing his complaint on a statement that "about a year ago a pharmacist was arrested for practicing medicine without a license for selling over the counter a box of female pills advertised and sold throughout the United States. A jury acquitted him. . . ."

Knowing the news item to be a misstatement of fact and most unjust in its criticism of the doctors, as well as the law, we made a search for the motive that inspired its venom. The violator file of the Board of Medical Examiners disclosed the G. D. Johnson, alleged as connected with the Kin-Tai-Do Pharmacy, came to our attention in 1923 through a card reading "Dr. G. D. Johnson, 245 South Eldorado Street, Stockton." The records disclosed that there was no one by that name licensed in the state of California, and an investigation produced sufficient evidence to warrant filing a charge of violation of the Medical Practice Act. The records show G. D. Johnson pleaded guilty in the Superior Court, Stockton, California, of the offense charged and on December 3, 1923, was sentenced to pay a fine of \$150.

In March, 1924, complaint again came to us that G. D. Johnson was treating various patients, mostly women, giving hypodermics, etc., but nothing developed until 1925, when it was reported that Johnson was located at 320 East Lafayette Street.

A letter in our files dated Stockton, November 4, 1925, signed Hugo Hagenhofer, 715-F Church Street, Stockton, reads: "My daughter is in hospital here suffering from an infection caused by illegal operation which she accuses Dr. F. H. Johnson. . . . This man is at present employed at the Kin-Tai-Do Drug Store. . . ." Reports of our investigation department indicated that Mrs. S. called on G. D. Johnson at the above named drug store, that he took her to his residence and, according to her story, made a physical examination, told her she was pregnant and that he would relieve her for \$50, that Mrs. S. paid \$20, and it is alleged Mr. Johnson then performed some sort of an operation, which produced the desired result in four days.

A later report relates that on January 4, 1926, G. D. Johnson, on being questioned by District Attorney Dunne of Stockton and Special Agent Henderson of the Board of Medical Examiners, stated that he had sold the husband of Mrs. S. two boxes of pills at \$6 each to relieve her suspected pregnant condition, and that he made a general denial of the story regarding an operation. So much to explain the circumstances which presumably were the basis of his complaint that a pharmacist had been "arrested for practicing medicine without a license for selling over the counter a box of female pills. . . ."

On January 4, 1926, it is reported that a Stockton police officer, armed with a search warrant, took from G. D. Johnson's residence, 320 East Jefferson Street, Stockton, various instruments including a speculum, forceps, vaginal probes, stethoscope, about forty hypodermic needles, etc., and thereafter a charge of violation of Section 274 of the Penal Code, as well as a charge of violation of Section 17 of the Medical Practice Act, was filed.

On April 5, 1926, Mr. Johnson was acquitted on the Penal Code charge. However, on November 8, 1926, Mr.

Johnson was found guilty by a jury in the Superior Court at Stockton of a violation of the Medical Practice Act and thereafter sentenced to pay a fine of \$500 and serve five months in the San Joaquin County jail, a notice of appeal having been given when sentence was imposed.

Is it to be wondered that Mr. Johnson urges "something should be done to take away some of the powers of the State Board of Medical Examiners"? Does he make this appeal so he can use the various instruments, hypodermic needles, etc., seized in his home?

Our narrative discloses "the inspiration" that created Mr. Johnson's attack on the medical profession and the Medical Practice Act.

We leave it to your readers to decide whether the druggists of California cry for "protection" against "prosecutions for violation of the Medical Practice Law" in such an instance as has been related.

We know your sense of justice will lead you to give this statement the same publicity as was given the article by Mr. Johnson printed under the headline "Medical Practice Act Wrong."

Very truly yours,

BOARD OF MEDICAL EXAMINERS.

C. B. PINKHAM, *Secretary-Treasurer.*

THE NEW YORK MEDICAL WEEK

The Official Organ of the Medical Society of the County of New York

Representing the Activities of the Medical Organizations of Greater New York

New York, December 22, 1926.

Dear Editor: The enclosed article or letter was written in an effort to awaken the profession to know the real men who bore the brunt of the struggle to give physiotherapy to us. There is altogether too much tendency just now to keep physicians in the dark about who these pioneers really were, and for this fault the electrical instrument makers and their put out "literature" is to blame.

A. B. HIRSCH, M. D.

Editor, The New York Medical Week.

WHO GAVE US PHYSIOTHERAPY?

Last September's issue of CALIFORNIA AND WESTERN MEDICINE had a timely editorial on "This Physical Therapy Stuff" that should encourage more general resort to physiotherapy by the profession everywhere. Physiotherapy, by the way, is older, more euphonious and universal than the recently coined cumbersome term, physical therapy. It was gratifying to those active for years in this field to see our leading organ on the Coast give credit in this movement to such pioneers as Massey, Pope and Morse, all honor to each of them. But why overlook that outstanding figure who has borne the brunt of thirty-odd years' valiant struggle for its recognition, Dr. William Benham Snow of New York, whose quarter century editorship of *Physical Therapeutics* was lately celebrated by a largely attended testimonial banquet at Atlantic City, tendered him by his many friends in the profession? Successful practitioner, author, teacher and editor, possibly no man in any country has thoroughly instructed so many physiotherapists or has done more to further the use of physical treatment agents than this energetic veteran in our ranks. His laboratory continues to be a center for physicians from all states and countries when passing through the metropolis, the same smile and hearty handshake as of yore greeting the newcomer.

Why physiotherapy? The huge physiotherapy clinics of our recent war hospitals were, of course, a large factor in the favor with which the American profession now receives it. The hundreds of doctors in these hospitals, then army officers, on returning to civilian practice carried home many of the new methods learned in these clinics, especially when the latter were in charge of men thoroughly trained in this field.

Years before the World War, though, a devoted group of progressives among us, dissatisfied with the meager results of prevailing therapeutics, had been seeking the

aid of various physical forces for relief of the sick and injured. Massage, hydrotherapy, remedial exercise, these had found favor with the fortunate few who had studied under their advocates abroad. Some of the additional physical methods now in use, electrical agents, are American in origin and have supplanted much of the first named on this side of the Atlantic. The work of Massey, Rockwell, Herdaman and others in continuous current (galvanic) methods is now established history.

After Dr. William J. Morton's return from Charcot's clinic in Paris in 1881, his discoveries of the static induced and static wave currents are believed to have given the incentive to d'Arsonval, Oudin, Tesla, Strong, and a few others to develop the now much emphasized high frequency currents and apparatus. Snow was another leader in broadening static modalities. The original suggestions of Leduc and Lewis Jones in ionic electricity, of Mary A. Cleaves and W. B. Snow in radiant light and heat, in the late nineties and after, also became permanent additions to our therapy. Roentgenotherapy, growing at that time, need only be touched upon here. Use of ultra-violet and other spectral rays did not come into vogue until fully a decade later.

One must not overlook probably the most valuable agency for furthering research in this field from its outset, the American Electrotherapeutic Association, more vigorous now than ever, in its thirty-sixth year, with membership in most of our states and in other countries. At its meetings were announced many of the new discoveries and, in checking up their values, there were given the expert opinions of such electrical engineers of international repute as Elihu A. Thomson, Samuel Sheldon, William A. Jenks, Charles L. Clark, and their compeers. These were the authorities who also passed on now established definitions of currents, their nomenclature and terminology.

One must not omit from this roll of honor another still among us, Dr. Frederick F. Strong, long a Bostonian, but in late years enjoying the climatic and other delights of southern California. Fully a quarter century ago this busy practitioner found time to invent probably the earliest workable high frequency apparatus, to publish a textbook on the subject and, by his decided originality and energy, to give this specialty much of its early credit and impetus.

There can be no question but that, with the rapidly growing absorption by the profession of these proved physical methods, the present blatant treatment cults will find their occupation gone and the public's demand for such physical measures supplied by the former. Then the scientific physician will have restored his rightful earning capacity.

This restoration, however, implies ample opportunity to obtain real postgraduate training in these methods. It should prove welcome news, therefore, that the several national physiotherapy societies of physicians are together planning (1) a common curriculum for medical graduates wishing to learn the subject and (2) a training course in hospitals for nonmedical technicians; these are then to be submitted, as suggestive, to the Council on Physical Therapy of the American Medical Association. This has not come any too soon, as it is full time that the present one-week stands of peripatetic lectures on the subject, usually under covert control of apparatus makers, should be replaced by just as thorough-going instruction as in each other limited field of practice.

A. B. H.

Hypophysectomy and Replacement Therapy—The basal metabolism of totally hypophysectomized rats was found by G. L. Foster, Berkeley, California, and P. E. Smith, Palo Alto, California (*Journal A. M. A.*), to be about 35 per cent below the average of their series of normal animals. The metabolic rate of these animals may be restored to normal by daily anterior pituitary homotransplants or by daily injections of thyroid extract, but not by daily injections of posterior lobe extract. The specific dynamic action of glycocholic acid is absent in hypophysectomized animals and apparently can be restored only by replacement of both anterior and posterior lobe, but not by either one alone.

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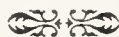
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BOOK REVIEWS

(Continued from Page 169)

written by equally competent physicians which in effect are special pleadings for special purposes. Some of those by nonmedical persons also reflect sound judgment and experience when they confine themselves to nonmedical matters. Too many of these books by many classes of authors but tend to confuse, even to the point of discouragement, the people they are presumed to serve.

Doctor Sachs, the author of the present little book of 100 pages, is a well-known physician, but his book is disappointing. While it is entitled "The Normal Child," nearly half of its small, large-type pages are devoted to the familiar discussion of "the evils of psychoanalysis." For the rest, there are sound opinions that would merit the endorsement of most physicians, some of these uniquely and appealingly presented. There is much more that doubtless will be useful to Doctor Sachs' own patients, but which other physicians will not endorse for their patients. There is not much in the book about "the normal child," whatever that sloganized phrase may mean.

"Shell Shock and Its Aftermath," by Norman Fenton, Ph. D. (C. V. Mosby Company, St. Louis, 1926).

This book of 170 pages consists essentially of the study of war neurosis patients in base hospital 117, located at La Fauche, in the foothills of the Vosges mountains, and particularly in "follow-up" of some 3000 patients through their varying vicissitudes after demobilization.

The author seems to show that the "war neurotics" have become more of a social asset and less of a problem to themselves than was the case in 1919-20. There are much data carefully collected, analyzed and interpreted, and considerable discussion of the conditions under which shell shock developed and of the outcome in varying circumstances.

"History Taking and Recording," by James A. Cor-scaden, M. D. (Paul B. Hoeber, Inc.).

Another physician's 75-page outline of his idea of how histories should be made and recorded. The book is apparently intended as a guide to the mechanics of the problem for the use of "historians." It may serve a useful purpose in those hospitals, clinics, and offices where the plan does not interfere with one of the many other good plans long in satisfactory operation.

"Practical Surgery of the Joseph Price Hospital," by James William Kennedy (F. A. Davis Company, Philadelphia, 1926).

The crusading spirit characteristic of pioneers was well exemplified in the life of Joseph Price.

As in all crusaders, the accompanying militancy brought Doctor Price into frequent disagreement with his fellow-surgeons, but a review of his life from the vantage point of the present indicates that he undoubtedly will live in medical history as a great surgeon.

James Kennedy, the author of the book under review, was for eleven years Price's assistant, and is now chief surgeon of the Joseph Price Hospital. He introduces his book with a picture and a short biographical sketch of the life of Doctor Price and writes of him with affectionate memories and in a staunch belief in the greatness of his former chief.

The book does not claim to be a textbook of surgery, but rather a review of Price's teachings and practices in the light of present-day knowledge. This, particularly about surgical subjects in which Price's teachings differed from the generally accepted ones during his strenuous life. In fact the outstanding feature of this book is an attempt—a useful one—to make live again the most useful creations of a master and to interpret them in the light of the subsequent experiences of his associate and former assistant.

This book, well illustrated with 129 halftones, some in colors, will be of interest to surgeons and to medical historians.

"Physiology and Biochemistry in Modern Medicine," by J. J. R. MacLeod, assisted by Ray G. Pearce, A. C.

(Continued on Page 252)

HAYFEVER

All Sections—**NORTH—EAST—SOUTH—WEST**—All Seasons

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Typhoid Fever—The up curve in the cycle of typhoid incidence is definitely in evidence from many parts of the world. In the ordinary course of events the peak of the graph was due around 1920, but was definitely postponed by vaccination of millions of soldiers of the late war, as well as the more effective sanitation enforced on a large scale for the second time in history, the first being the Russo-Japanese war.

It seems reasonable to believe that unless anti-typhoid vaccination and more effective peacetime sanitation is brought about, typhoid will again reach a high incidence. It is not likely that much will be done about it until the useless sacrifice of health and lives reaches the stage of a great pandemic and then we may spend millions in a "drive" to "stamp it out again."

Lessons learned from epidemics, like those from war, are quickly forgotten. There is a period of quiescence during which, in the case of epidemics, the enemy builds up his armies of microscopic soldiers for the next mass invasion.

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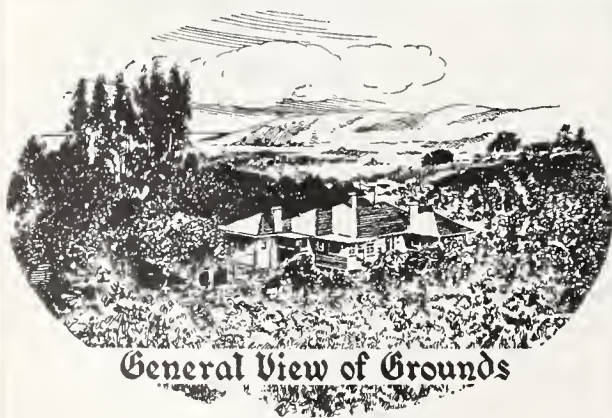
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BOOK REVIEWS

(Continued from Page 246)

Redfield, N. B. Taylor and J. M. Olmstead and others (C. V. Mosby Company, St. Louis, 1926). Price, \$11.

The necessity for five editions of this monumental work in the eight years is tangible evidence of three facts of outstanding importance: the need of books combining the essentials of physiology and biochemistry for the bedside physician; the success with which MacLeod and his assistants have filled the need; and the rapid growth of knowledge in these important subjects that needs interpretation to the practicing physician.

While still adhering to his original purpose of preparing a book embodying the truths of physiology and biochemistry to "serve as a guide in the bedside study of disease," MacLeod and his collaborators in the present edition (fifth) have expanded their efforts so as to provide a textbook of physiology for students of medicine as well.

The volume now consists of some 1000 pages, with 291 illustrations, including nine plates in colors. There are new or markedly extended chapters on the physiology of the special senses and nerve-muscle physiology. Many other chapters have been revised to include essential facts that are being accumulated so rapidly in this field.

Every physician, regardless of his specialty, who practices medicine should have this book handy for reference, and a more studious reading of it will be of distinct service to those who haven't the time to pick from the great mass of periodic literature the things applicable to the purposes of the practicing physician.

"Practice of Preventive Medicine," by J. G. Fitzgerald, assisted by Peter Gillespie, H. M. Lancaster, and others (The C. V. Mosby Company, St. Louis), second edition. Price, \$7.50.

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(Continued on Page 256)



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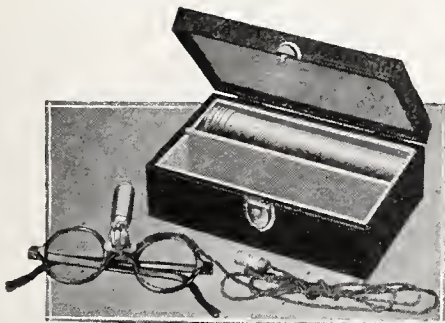
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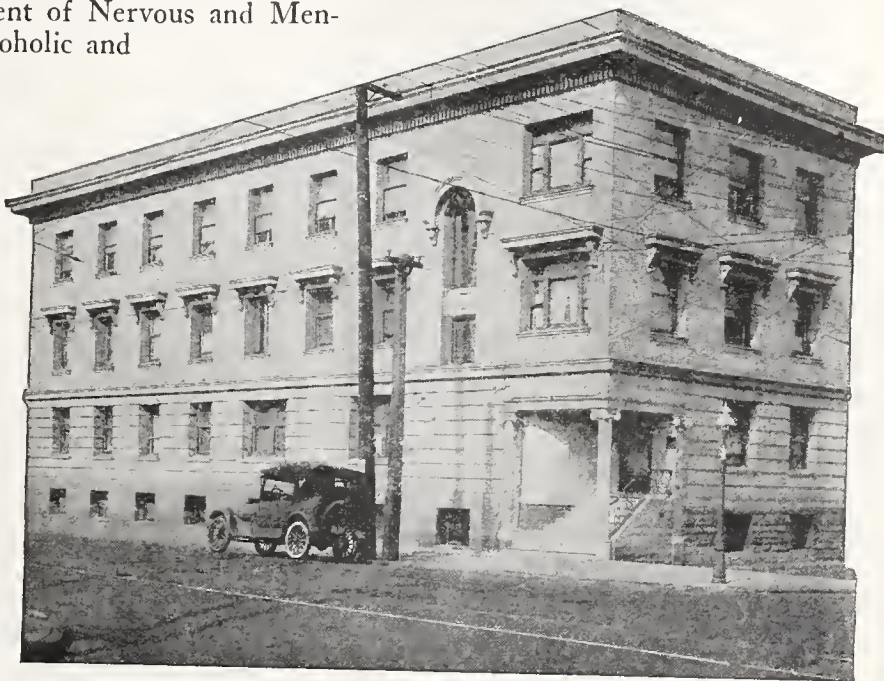
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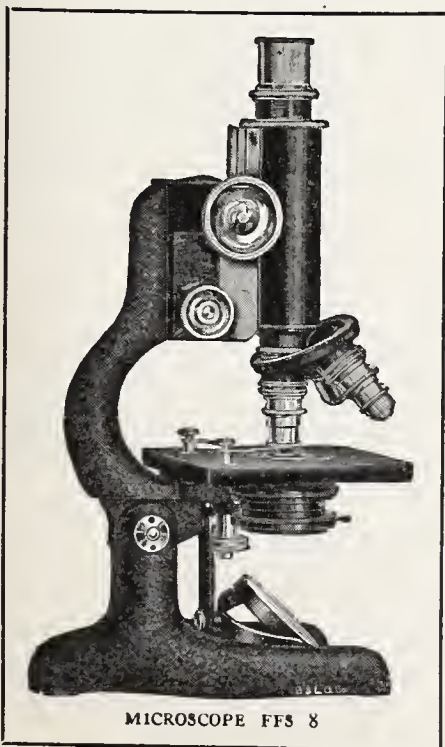
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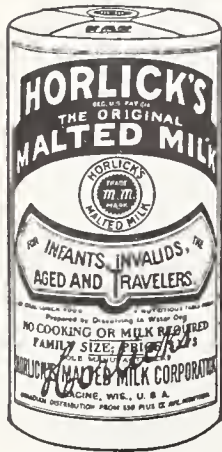
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(Continued from Page 252)

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who practice it as a specialty, chiefly as "public health" officials. There are excellent books covering each of these two great branches of medical service and some that attempt, usually unsuccessful, to cover both.

There is a great need for more well conceived and sanely executed books that deal effectively with the broad principles of the vast field of disease prevention, but of those that attempt to scramble a few briefs from the literature of clinical or personal health and the fundamental truths of preventive medicine, there are too many. There is also a need for books like the volume under review that in large measure discusses the subject on the basis of the laws and requirements of one group of nationals.

As a guide to public workers under the laws, regulations and methods in vogue in Canada, this book doubtless will serve a useful purpose.

In the opening paragraph of his introductory chapter the author announces the laudatory health principle that "the aim of the physician who is engaged in the practice of preventive, as well as curative, medicine, is so to advise and deal with patients entrusted to his charge that they will, from their earliest years, enjoy the benefits of vigorous bodily and mental health." But the keynote of the philosophy of the author is found in this far less commendatory statement: "The state should provide health supervision . . . for all those who chose to take advantage thereof from infancy to old age, and these services should be free to all, rich and poor alike, and no stigma of charity should be attached to its acceptance." However, it is encouraging to note that the authors do not believe this governmentalization of medicine should be made compulsory; "let those who pay their taxes and help provide the service offered by the state, arrange for their own private supervision should they so desire."

Most authors of books on preventive medicine, like those of general medicine texts of years ago, seem to feel

(Continued on Page 259)



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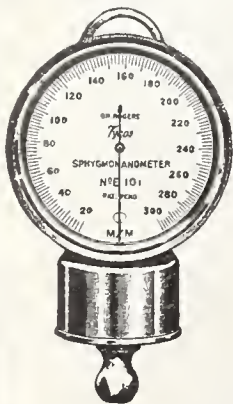
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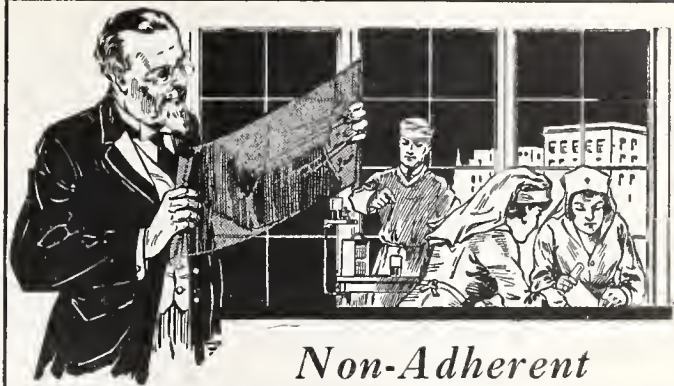
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BOOK REVIEWS

(Continued from Page 256)

it incumbent on them to include chapters on laboratory technique, which may be found more completely and satisfactorily done in books on these subjects.

Educated physicians, whether in private practice or specializing in public health work, still look with hopeful anticipation for a textbook on disease prevention that does not attempt at the same time to be a guide to the details of laboratory procedures and technique of other kinds that the physician is already familiar with or may review in books or small monographs devoted to these matters.

"Proceedings of the Twentieth Anniversary Convention of the Association of Life Insurance Presidents, 1926." Printed privately.

The published proceedings of the annual convention of the Association of Life Insurance Presidents always makes worthwhile reading for physicians and others who are interested in the economics of health. At the 1926 meeting held recently, much less than usual was said that bears closely on medical matters, but many speakers made points of great interest and importance in revealing the trends of the most powerful medical influence, next to government itself, in our country and Canada.

Mr. John D. Sage, president of the Union Central Life Insurance Company of Cincinnati, in his address as chairman of the convention, stated that the amount paid to policyholders and their beneficiaries this year "will reach the unprecedented figure of \$1,350,000,000"; and that

(Continued on Page 267)

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Usual Maxillary Deformations—Harvey Stallard, San Diego, California (*Journal A. M. A.*), is of the opinion that pressure is of very great importance in the etiology of maxillary deformations, as, for instance, pillowing the face on the arm during sleep; certain sitting postures in which the face is rested against propped hands, which may narrow, shorten or push the jaws to one side of the face. Doubtless, the effect of these pressures would be less significant if the child never had prolonged plasticity through malnutrition or through disease, both of which physicians seem unable at present to prevent. However, it seems impossible to have the highest oral development in a person exerting habitual pressures against the face, regardless how hygienic his surroundings or how perfect his food and inheritance might be. These factors also affect the shape and volume of the nose. In unilateral malocclusions or in asymmetrical bilateral forms the external nose slants toward the more normal side of the face and away from the pillowed side; the narrower nostril is on the side receiving the more pressure, and the alveolar process on the narrowed side often descends more, and the septum is deflected toward the narrower nostril. Stallard has also observed that, in those subjects having contracted-retracted maxillary arches, the nose has not been allowed to descend properly; it is unequally narrowed, and the septum is sigmoid.

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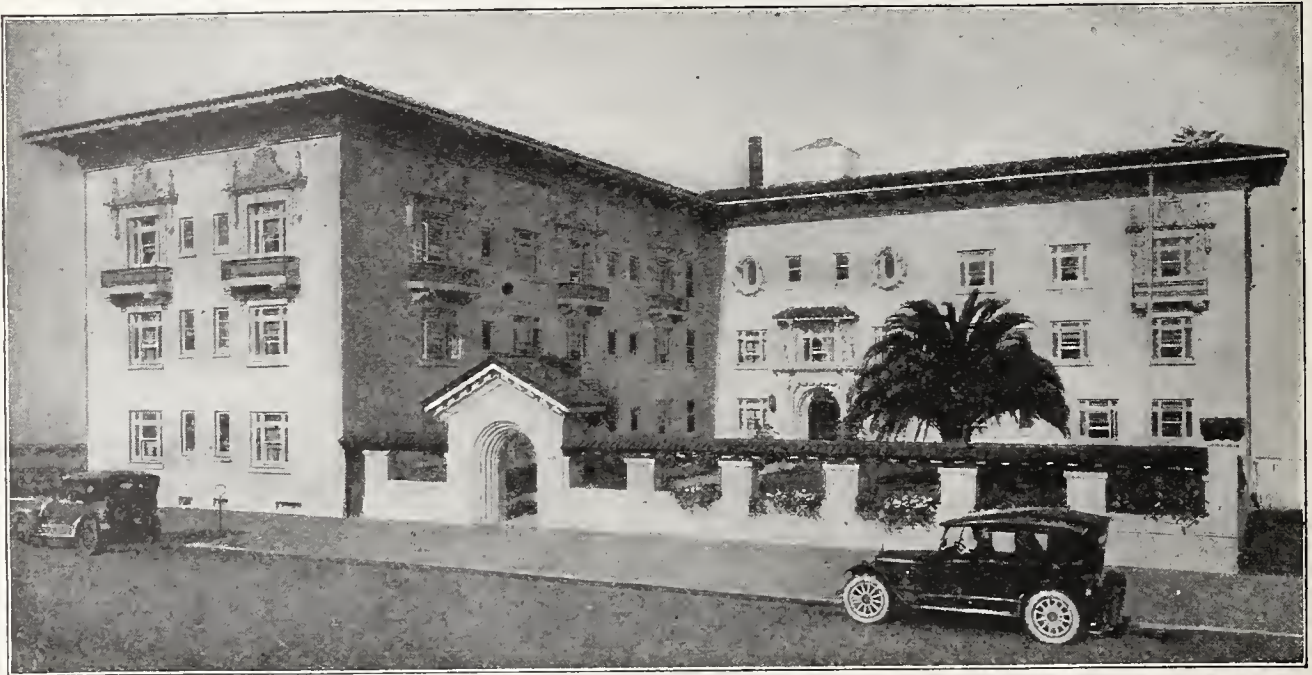
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Being the child of a shoemaker is nothing compared to being a physician's child, declares Ruth Maxwell Palmer in *Hygeia* for January. The shoemaker's child may have to go without shoes, but a physician's child does without a doctor when she is sick and without a father always.

The inside story of life in a country doctor's family—how when the baby had croup the father and doctor was sixteen miles away attending another baby, the birthday dinner at which the guest of honor never arrived, the Christmas day when the telephone rang seventy-seven times, the struggle to keep up appearances when collections were slow—Mrs. Palmer gives as reasons for her girlhood determination never to marry into the medical profession. That she did marry a physician and that two of her brothers followed their father's profession is proof of the loyal service that a physician and his family give the public.

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BOOK REVIEWS

(Continued from Page 259)

"death claims will be paid to the beneficiaries of 500,000 deceased policyholders, approximately one-third of the total deaths in the United States."

Mr. Charles Evans Hughes made the point that "there was a time when insurance companies dealt with mortality only through the tables underlying their calculation of premiums. But now it is different. They find advantage to their members and thus to the incorporated association itself, in seeking to prolong life. They give us information; they promote undertakings to prevent disease. They thus become the agencies of health as well as thrift, and it is idle to talk of thrift unless you have health."

Mr. M. Albert Linton, Provident Mutual Life Insurance Company of Philadelphia, gave some interesting fig-

ures, from which we select: life insurance outstanding, 80 billion dollars; new life insurance paid for during year 16.4 billions, amount per capital of population \$140.

A little better than every fifth person of our population has life insurance protection. As usual there is appended to the report a bibliography of literature that this group of insurance executives consider worth while.

Preoperative Diagnosis of Horseshoe Kidney—Herman L. Kretschmer, Chicago (*Journal A. M. A.*), reports cases in which the diagnosis is made from the plain roentgenogram, cases in which the diagnosis is made from the roentgenogram, and in which there is associated disease, and cases in which a diagnosis of horseshoe kidney is made by pyelography. As a general rule, horseshoe kidney can seldom be recognized by abdominal palpation, unless the kidney is enlarged. However, in three of the five cases cited the kidneys were palpable.

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BOOKS RECEIVED

International Clinics: A Quarterly of Illustrated Clinical Lectures and Especially Prepared Original Articles. Vol. IV. Thirty-sixth series, 1926. Review copy by courtesy of the publishers, J. B. Lippincott Company, Philadelphia.

Report of the Philippine Health Service for the Fiscal Year from January 1 to December 31, 1924. Jacobo Fajardo, M. D., Director of Health. Review copy by courtesy of Health Department.

The Specialties in General Practice. Compiled by Francis W. Palfrey, M. D., Instructor in Medicine at Harvard University in collaboration with fourteen other teachers of Harvard Medical School. Octavo of 748 pages. Philadelphia and London: W. B. Saunders Company, 1927. Cloth, \$6.50 net.

Report of the Department of Health of the City of Chicago for the Years 1923, 1924, and 1925. By Herman N. Bundesen, M. D., Commissioner of Health. Review copy by courtesy of Dr. Herman Bundesen.

A Manual of Pharmacology and Its Application to Therapeutics and Toxicology. By Thorald Sollmann, M. D., Professor of Pharmacology and Materia Medica in the School of Medicine of Western Reserve University, Cleveland. Third edition; entirely reset. 1184 pages. Philadelphia and London: W. B. Saunders Company, 1926. Cloth, \$7.50 net.

Annual Report of the Surgeon-General of the Public Health Service of the United States for the Fiscal Year 1926. Review copy by courtesy of the Government Printing Office, Washington.

The Life and Time of Adolf Kussmaul. By Theodore H. Bast. Review copy by courtesy of the publishers, Paul B. Hoeber, Inc., New York.

Transfusion of Blood. By Henry M. Feinblatt. Review copy by courtesy of the publishers, The Macmillan Company, New York.

The Practical Medicine Series (Comprising eight volumes on the year's progress in medicine and surgery), 1926 series. Under the general editorial charge of Charles

L. Mix. Review copy by courtesy of The Year Book Publishers, Chicago.

Hewat's Examination of the Urine, and Other Clinical Side-Room Methods. Revised and enlarged by G. L. Malcolm-Smith. Seventh edition. Review copy by courtesy of the publishers, Paul B. Hoeber, Inc., New York.

Perpetuo D. Gutierrez and Aureo F. Gutierrez (Journal Philippine Islands Medical Association, November, 1926), tabulate the diagnosis given on the records of 75,532 patients treated in the Philippine General Hospital, Manila. They summarize their findings thus:

1. In a study of 76,532 medical cases at the Philippine General Hospital, intestinal parasitism, notably ascariasis, tops the list of diseases, comprising 15.82 per cent. The second is pulmonary tuberculosis, with 6.16 per cent.

2. Amebic dysentery is the third, showing 5.52 per cent. Liver abscess occurred in 3.11 per cent of the cases of amebic dysentery.

3. Influenza seems still to be endemic in the Philippines. Dengue seems to have declined from 1914, and up to the present only an average of ten cases is reported a year.

4. Typhoid fever occurred in 4.84 per cent of all cases. This disease seems to be more prevalent toward the end of the year, during the months of August, September, and October. The mortality continues to be high; on the average it is 22.54 per cent.

5. Syphilis is present in the Philippines to the extent of 0.98 per cent of all cases, and stands twenty-second in the list. Tabes dorsalis and general paralysis of the insane are encountered among Filipinos. They are, however, infrequent, their rarity being due to the fact that syphilis is not general among Filipinos.

6. Lobar pneumonia is twelfth in the list and shows 2.27 per cent of all cases. The average mortality is 24.27 per cent. The disease is more prevalent in March, April, and May.

7. Beriberi is still prevalent, and there does not seem to be a tendency for the disease to decline, if we take the cases admitted to the hospital as an index.

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"A quart of milk contains rather more calcium than a quart of clear saturated lime water, and by far the most practicable means of insuring an abundance of calcium in the dietary is to use milk freely as a food."—Chemistry of Food and Nutrition, p. 291, by Henry C. Sherman, Ph. D., Columbia University, N. Y.

"Mother's milk contains more lime than lime water; mother's milk contains three grains of lime to the pint; cow's milk 26."—John Harvey Kellogg, M. D.

"... there is no reason to believe that the chalk (hard) waters are at all superior to soft waters for drinking. The idea once entertained, that salts in hard water aided the growth and nutrition of the bones in children, has been abandoned as untenable."—Hygiene and Public Health, p. 58, Parkes and Kenwood.

IRON.—"Evidently, therefore, we must look to the food and not to medicines or mineral waters for

the supply of iron needed in normal nutrition."—Henry C. Sherman, Ph. D., Professor of Chemistry, Columbia University. (Chemistry of Food and Nutrition, p. 246.)

"Goat's milk contains ten times as much iron as cow's milk."—Old Age Deferred, Lorand.

MINERALS IN WATER.—"... Such information as has come to this survey fails to show any harmful or beneficial effects resulting from the absence or presence of moderate quantities of the usual constituents of natural waters in the public supplies of the cities of the United States."—Chief, United States Geological Survey.

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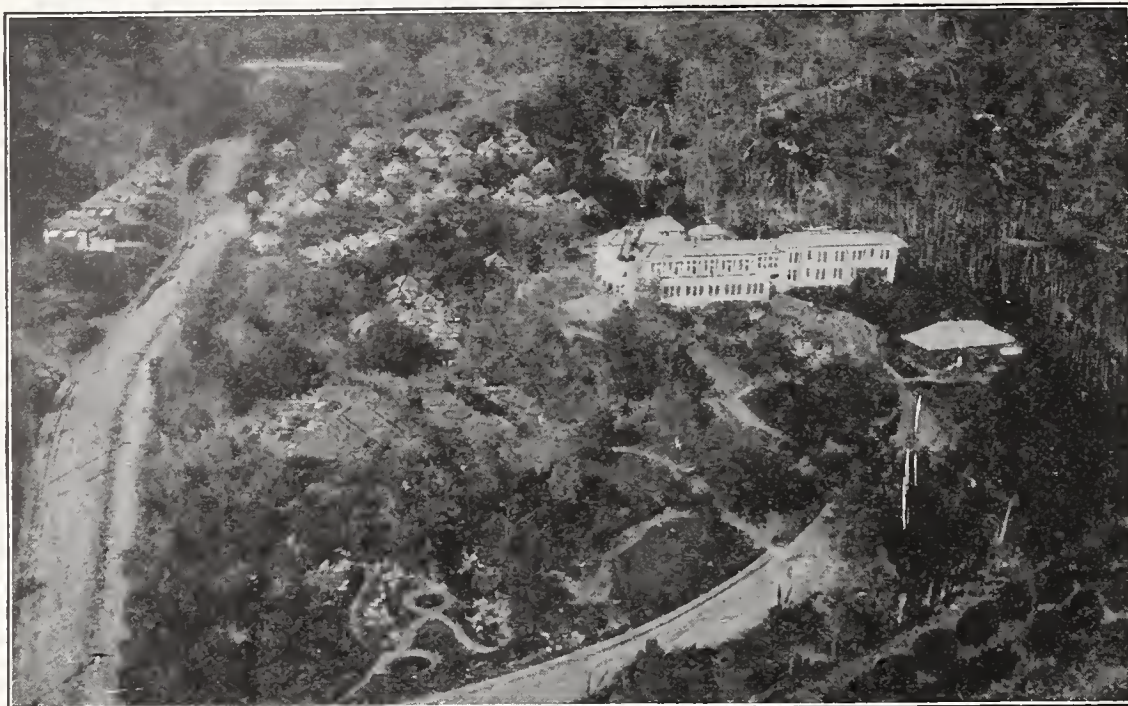
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Secretary, H. G. Campbell, Lindsay

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Secretary, John D. Lawson, Woodland.

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Secretary, F. B. Lawton, Marysville.

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Secretary, Walter M. Dickie, Sacramento.

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Colfax, Calif.

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Limited General Hospital
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Lincoln, California

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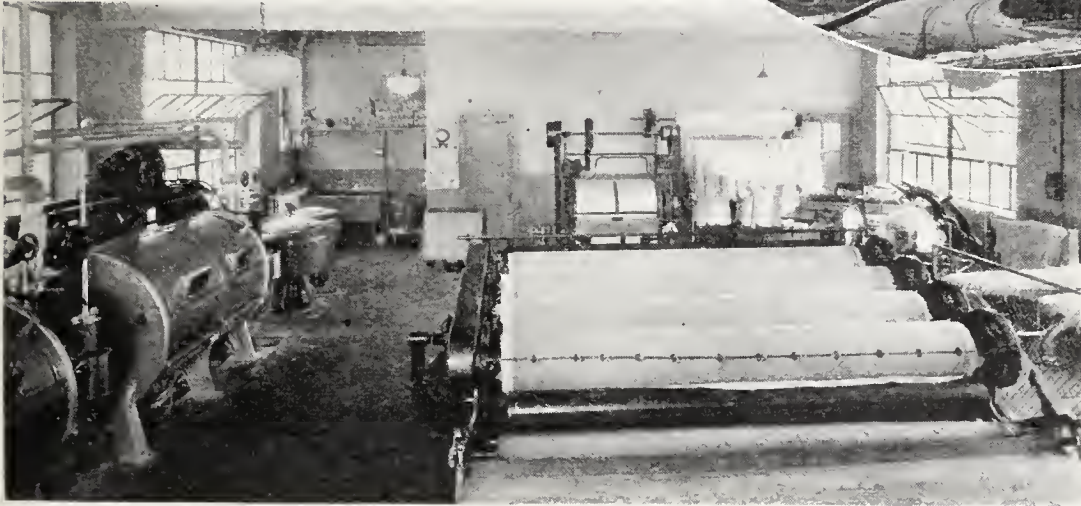
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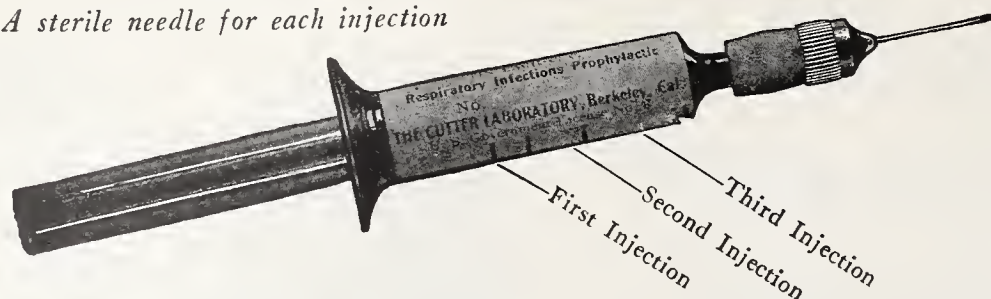
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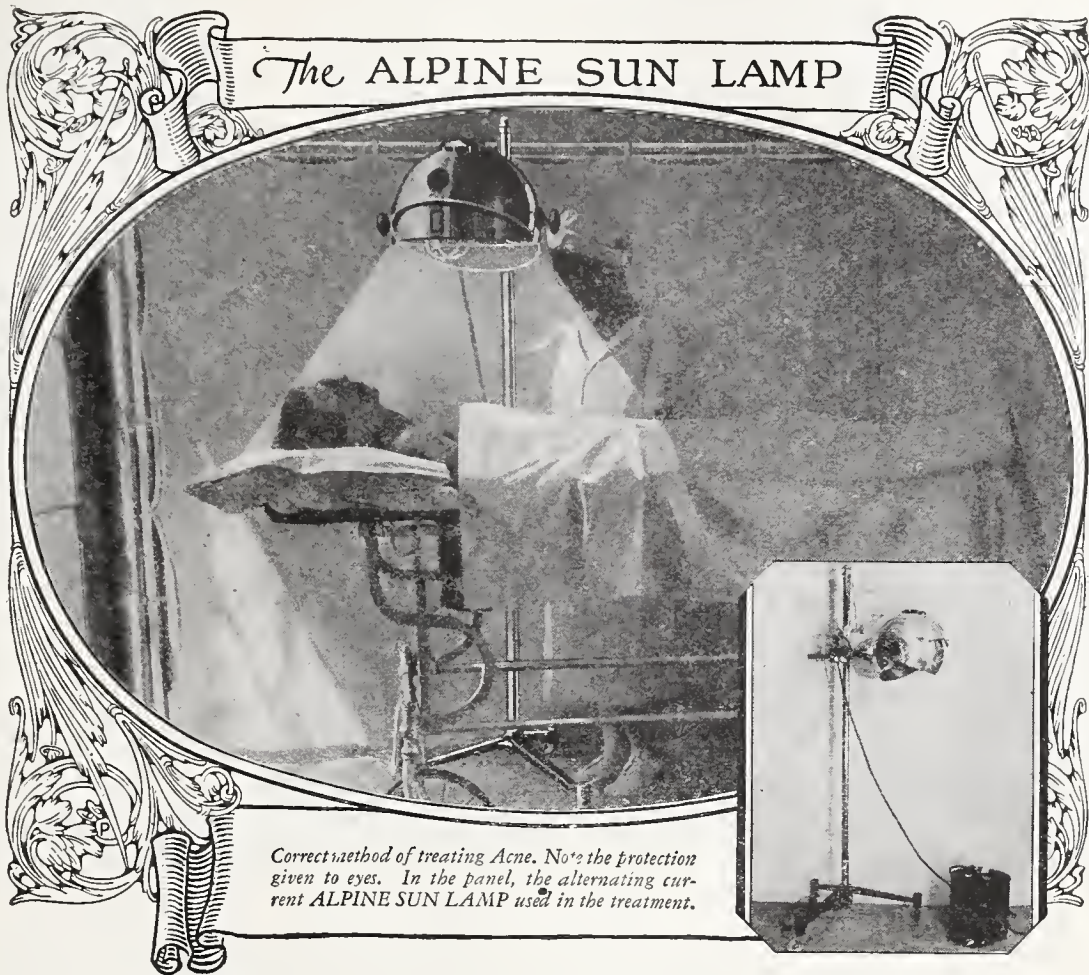
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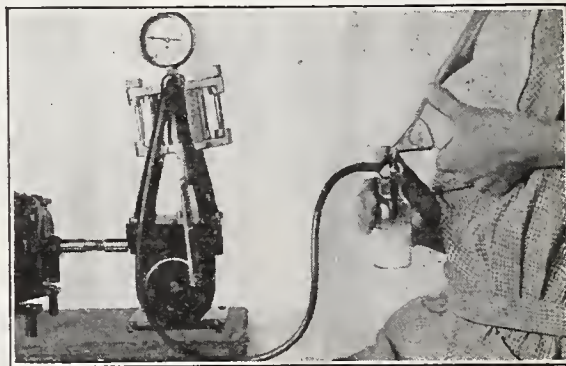
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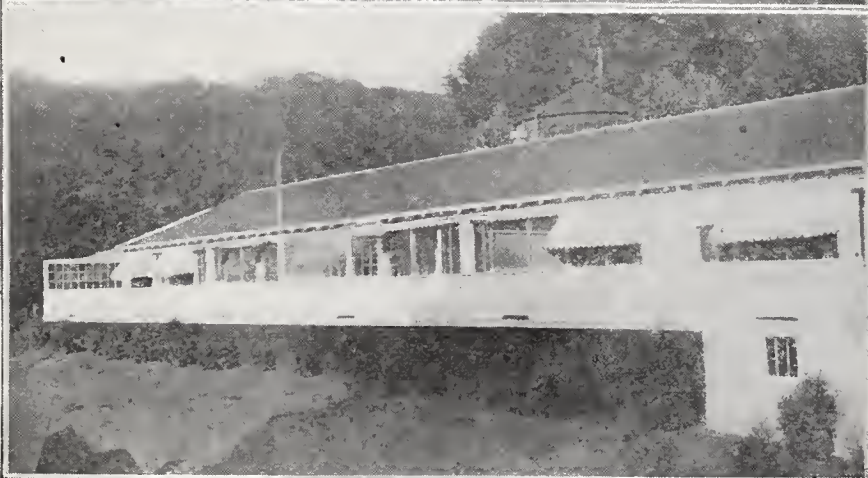


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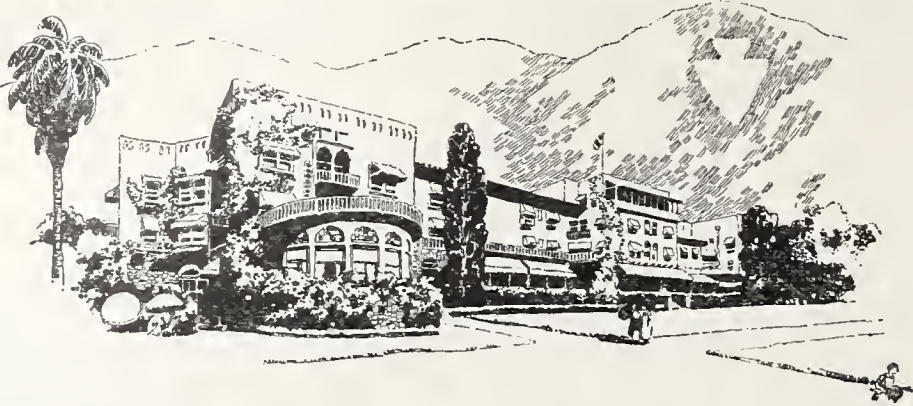


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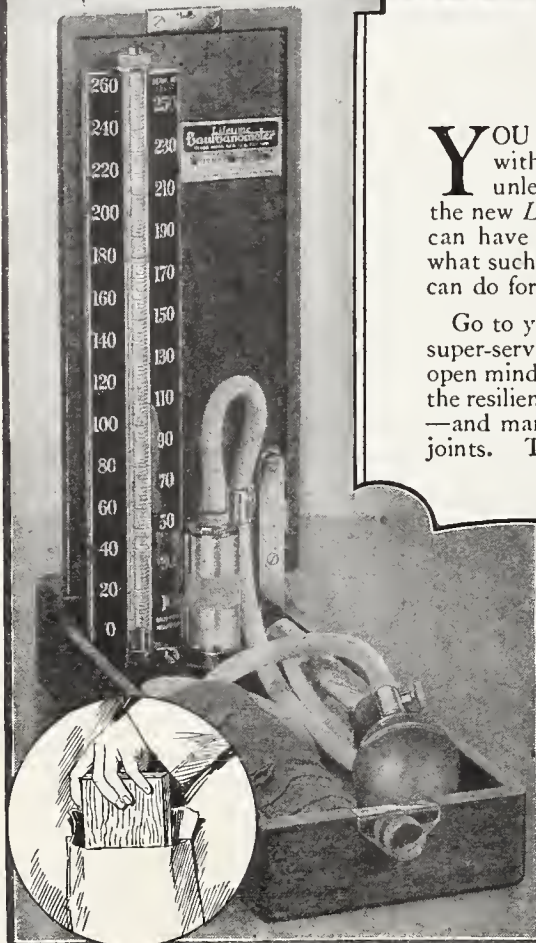
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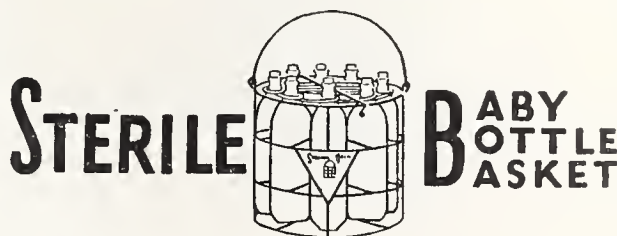
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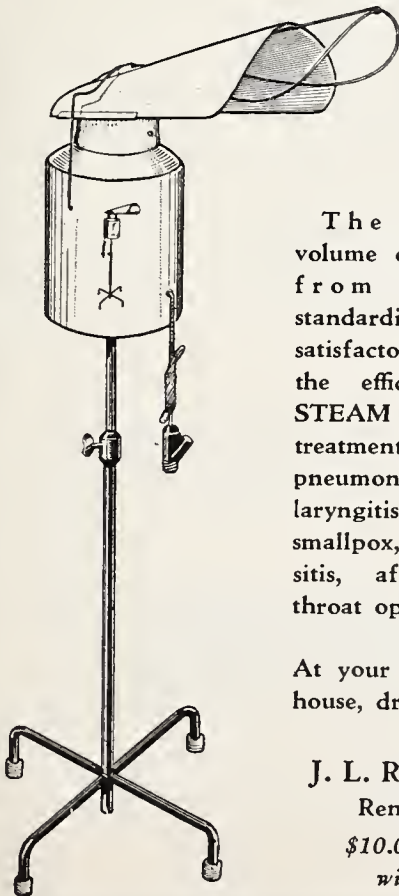
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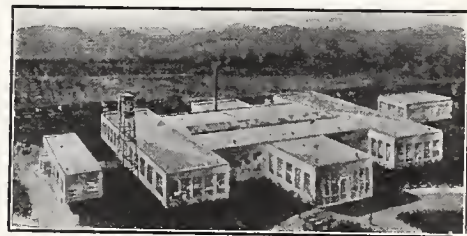
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The Etiology and Pathology of Chronic Deforming Arthritis

ELLIOTT P. JOSLIN

The Outlook for the Diabetic

NATHAN G. HALE

Surgical Treatment of Prostatic Abscess

PHILIP KING BROWN AND LEO ELOESSER

Lung Compression and Surgery of the Lung for the Relief of Tuberculosis (Symposium)

EMIL BOGEN AND PHOEBUS BERMAN

Poisonous Spider-Bites, with Especial Reference to the Latrodectus Mactans

EUGENE H. SMITH

Rickets at High Altitudes, with Special Reference to Its Occurrence in Utah

LLOYD B. DICKEY

Mongolism in Both of Twins

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Concerning the Etiology and Treatment of Measles

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Don'ts in Dermatologic Diagnosis

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Acute Intestinal Obstruction

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Pancreatic Cyst with Diabetes

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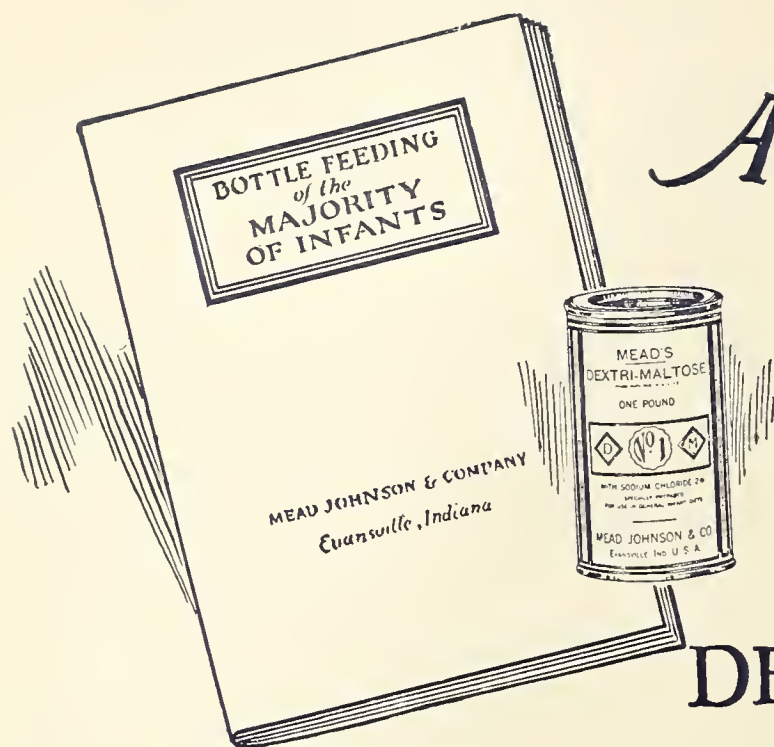
*Subject this month: Diets Most Useful in the Treatment of Vascular Hypertension
Discussed by: Lovell Langstroth, George A. Gray, John R. Frank, Henry Lissner,
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Editorials; Medicine Today; Medical Economics, Organizations, and Agencies;
California and Utah Medical Organizations; Readers' Forum;
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For Complete Index see Page 290

Volume XXVI

MARCH·1927

Number 3



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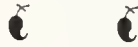
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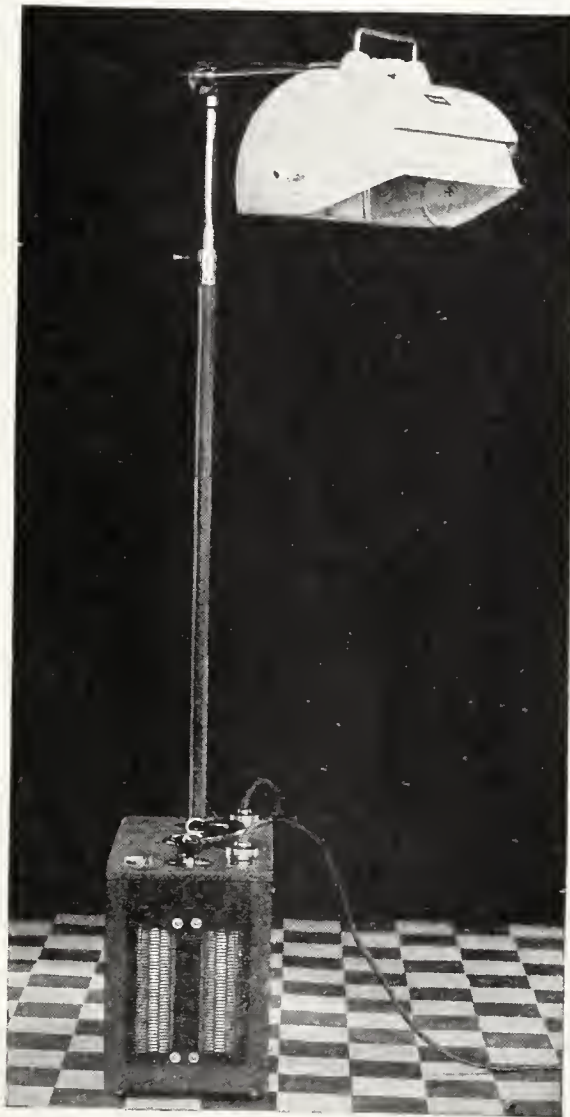
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VOLUME XXVI

MARCH, 1927

No. 3

Subscription prices, \$5.00 (\$6.00 for foreign countries); single copies, 50 cents.

Acceptance for mailing at special rate of postage provided for in Section 1103, Act of October 3, 1917, authorized August 10, 1918.

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This column is conducted solely in the interests of California and Western Medicine readers. Critical comment, favorable and unfavorable, purely from the standpoint of the interests of the medical reader, will be made about books selected from the larger number acknowledged in the Books Received column. The advertising columns are open to book publishers who wish to make additional statements about their publications.

The Surgical Treatment of Goiter. By Williard Bartlett. Pp. 365. Illustrated. St. Louis: C. V. Mosby Company, 1926.

This small book is written in excellent style. It represents a resume of the practical points of the recent literature in the surgical treatment of goiter, greatly enriched by the author's wide experience.

There is a chapter on the pathology of the thyroid gland by Louis B. Wilson of Rochester, Minn., prepared with this author's usual thoroughness and clearness.

The surgical treatment of goiter is considered from the standpoint of history, associated diseases, complications following operation and the new views on iodine therapy. The chapter on technic contains some valuable illustrations and is representative of the technic used by the author. There is a lot of other information that is worthwhile reading by anyone interested in the subject.

The Conquest of Disease. By Thurman R. Rice (MacMillan), 1927. Price, \$4.50.

In this book of some 350 pages Doctor Rice of the Indiana University Medical School makes a commendable effort to popularize much sound medical information about the conquest of some of the chief communicable diseases.

His explanations are clear, his facts conservatively stated and his appeal to the intelligence and common sense of the reader healthy. One of the most useful books of its kind we have read.

The 1926 General Surgery Volume of the Practical Medicine Series. Edited by Everts A. Graham and issued in eight volumes annually by the Year Book Publishers, Chicago. Price, \$3.

The value of "year books" depends largely on the care and intelligence used by the editors in culling the wheat from current literature and the clarity, brevity and directness with which the worthwhile facts are presented.

The series issued annually by the Year Book Publishers of Chicago is under the general editorship of Charles L. Mix, with a selected editor for each of the eight annual volumes. The one devoted to general surgery, heretofore edited by the late A. J. Ochsner, is now in the hands of Everts Graham.

For one who has no easy access to medical libraries, and cannot afford to subscribe for leading medical journals covering the field of his interests and practice, these annual reviews or Year Books, may prove of inestimable value.

Even for the surgeon who has ample library facilities and quantities of abstract journals before him, the careful sifting of surgical progress as it has been done by Doctor Graham and his associates for 1926 cannot fail to be useful, and these conveniently sized little books are very handy for ready reference.

The general practitioner and the "occasional surgeon" surely will find much that is useful in the current volume.

Transfusion of Blood. By Henry M. Feinblatt. The MacMillan Company, 1926.

In this useful little book of some 130 pages Doctor Feinblatt has discussed the historical development, current practices and procedures in this important feature of medical practice. The simplification of instruments and methods of the last few years has opened the possibilities of blood transfusion to the great body of doctors all over the country. With the ample, but brief, discussion of its indications and uses, and the careful but satisfying description of technique and detail, Feinblatt's book ought to serve as a useful manual to many physicians.

A Terminology of Disease. By Adrian V. S. Lambert. Paul B. Hoeber, Inc.

This is another of those little books giving another author's idea of how hospital records should be classified.

The only encouraging feature of books of this kind is that they show a growing interest in a subject of considerable importance. Neither this one nor any of the others we have seen compare favorably with the justly popular and widely used International Census of Disease Nomenclature and index of diseases used and published by the Census Bureau and which has in its making and periodic revisions a moral support similar to that which makes the United States Pharmacopeia so valuable in another line.

The Census Bureau volume may have its faults, but it

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is, as it should be, the standard accepted by most hospitals and official bodies throughout the world.

Edgar's Practice of Obstetrics for Students and Practitioners of Medicine. By J. Clifton Edgar. Sixth edition. Pp. 779. Illustrated. Philadelphia: P. Blakiston's Son & Co., 1926.

It is most unfortunate that a revision of Edgar's time-honored Practice of Obstetrics should have been mostly confined to a general shortening of the original text. One would have expected of Norris W. Vaux to have discussed recent advances in treatment and technique. For instance, there is a complete lack of such modern subjects as the Stroganoff treatment of eclampsia, the usefulness of the low abdominal (cervical) caesarean section, the use of Kielland forceps, the treatment of the adherent placenta by injection of the umbilical vein with hot saline solution, dye therapy in puerperal sepsis, the use of insulin in acidosis of hyperemesis gravidarum and eclampsia and a number of less important subjects.

Without wishing to appear too critical, the reviewer cannot but feel that the revised edition of Edgar's Obstetrics constitutes a pious attempt to perpetuate a once great book. As a text or reference book it has not been brought up to date sufficiently to be of great use to either student or practitioner.

The Life and Time of Adolf Kussmaul. By Theodore H. Bost. Paul B. Hoeber, Inc. Price, \$1.50.

In this delightful little book of 125 pages Doctor Bost has produced another of the pleasing and useful little biographies of great physicians now appearing with such regularity. This one, in fact, is more than a biography; it is largely autobiographical, because Kussmaul was engaged in writing the story of his own life when he died in 1902.

Emergency Surgery. The Military Surgery of the World War Adapted to Civil Life. By George De Tarnowsky. 718 pp. Illustrated. Philadelphia and New York: Lea and Febiger, 1926. Price, \$7.50.

This work consists of some 700 pages covering the entire field of emergency surgery from the protective forces of nature to roentgenology in emergency surgery.

The scope of this field requires a brevity which makes the work more or less of a compendium. The author has brusquely eliminated many of the unessentials which

(Continued on Page 298)



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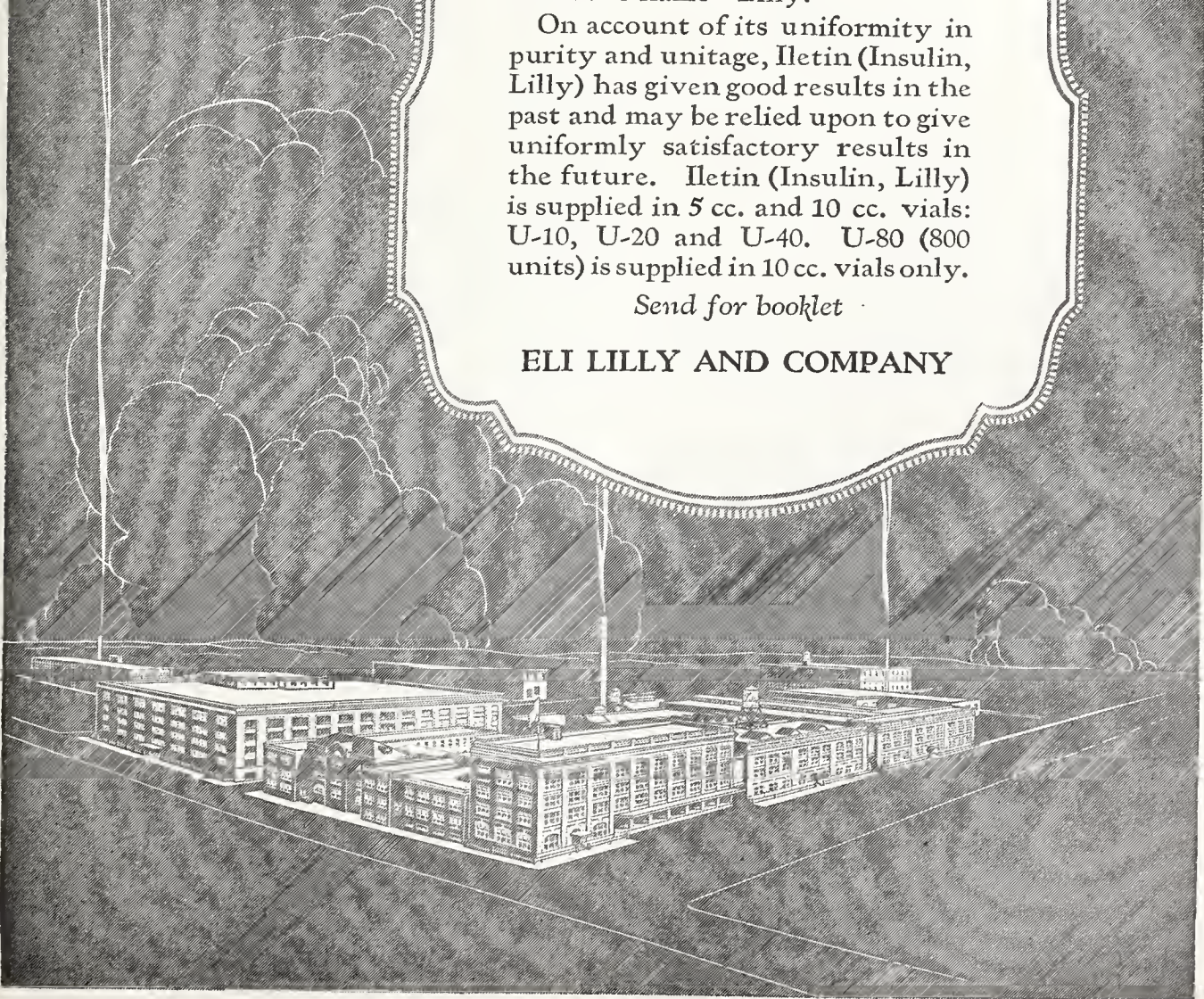
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BOOK REVIEWS

(Continued from Page 295)

appear in similar works, giving with a gratifying terseness the several more accepted methods of treatment.

In conclusion there are seventy-five pages dealing with the medico-legal aspects of emergency surgery, including medical fees, litigations, numerous decisions of industrial accident commissions in the various states.

The Treatment of Fractures. With Notes upon a Few Common Dislocations. By Charles Locke Scudder. Tenth edition, revised. Illustrated. Pp. 1240. Philadelphia and London: W. B. Saunders Company, 1926.

In the revised and enlarged tenth edition of his work on fractures, Doctor Scudder gives in detail the present knowledge of the operative and nonoperative methods of treatment of fractures.

The chapters on special subjects of pathological fractures, bone repair, fractures of the maxilla and mandible, massage, anesthesia and anesthetics, and birth fractures have been written by authorities on these subjects. There are 2027 illustrations with full descriptions and bibliography. All the important details that have been recognized as valuable in the diagnosis and treatment of fractures have been given by the author.

The final chapter, The Surgeon and the Law, deals with the responsibility of the surgeon in the diagnosis and treatment of fractures and should be carefully read by all who treat these conditions.

Doctor Scudder deals in a scientific and comprehensive manner with the entire subject of the modern methods of diagnosis and treatment of fractures.

1926 Annual Report of the Surgeon-General, United States Public Health Service. By Hugh H. Cumming, Government Printing Office, Washington.

There is an amazing amount of useful information in this book of 300 pages, if one has the patience to search hard enough to find it.

What a pity it is that the "Sir, I have the honor to report" character of presenting this, and other documents relating to the government services, cannot be replaced

by an interesting narrative style that characterizes other valuable documents.

The most significant feature of the report, as it is getting to be of all other government reports, is the increasing service being rendered to individuals and the decreasing emphasis placed on their public efforts. This perhaps is not the desire nor fault of the Public Health Service, but it is a hazardous trail to travel. However, when it comes to practicing personal medicine by government bureaus the public health service is an inconsequential unit compared with the Veterans' Bureau.

The rush and urge to cure something for some one who once had some connection with the government, however slight, is sometimes amusing, and always expensive. It is said that some of the old-timers are entitled to medical service from a half score of government bureaus and that they use them all.

However, aside from these matters, the United States Public Health Service is charged by law with an astonishing variety of responsibilities and they are discharging them with great credit to the service and to the profession they represent.

Human Pathology. A textbook by Howard T. Karsner. J. B. Lippincott Co., 1927. Price, \$10.

One-volume textbooks of pathology are about as difficult to write as would be a one-volume book containing the essentials of clinical medicine, surgery, and obstetrics. This comparison is all the more appropriate when an author like the present one assumes—and to a degree appropriately—that "to the pathologist all medical things are pathology."

A thousand-page textbook on pathology may be useful to the author's students, chiefly as an outline of pathology as he teaches it in the limited time at his disposal. Differences in points of view and in the relative space and importance given to different phases of this extensive subject are particularly strikingly shown in textbooks of the class under review.

A good part of Karsner's book is devoted to very lucid discussions of fundamental problems of general pathology, but in his chapters on special pathology the relative values assigned to subjects seem curiously disproportionate, and some of the statements, particularly about a few matters of tropical pathology, introduced here and

(Continued on Page 306)



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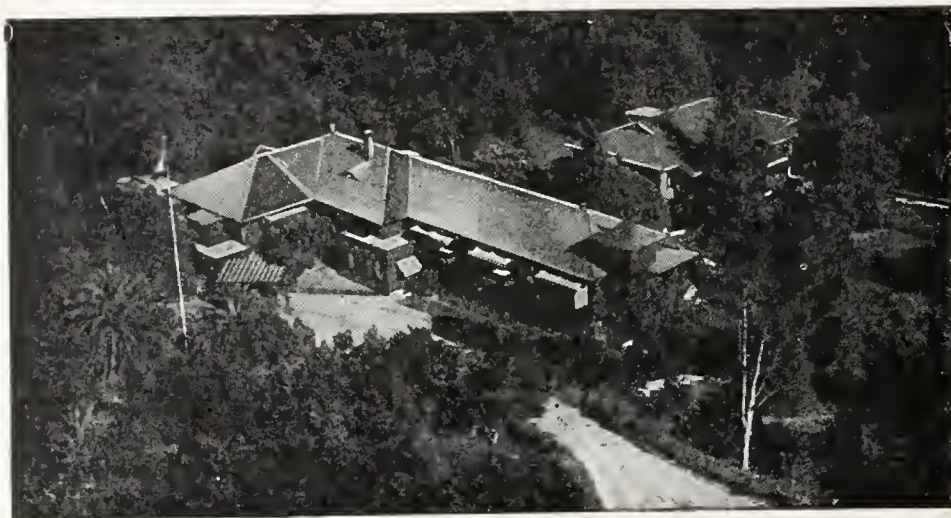
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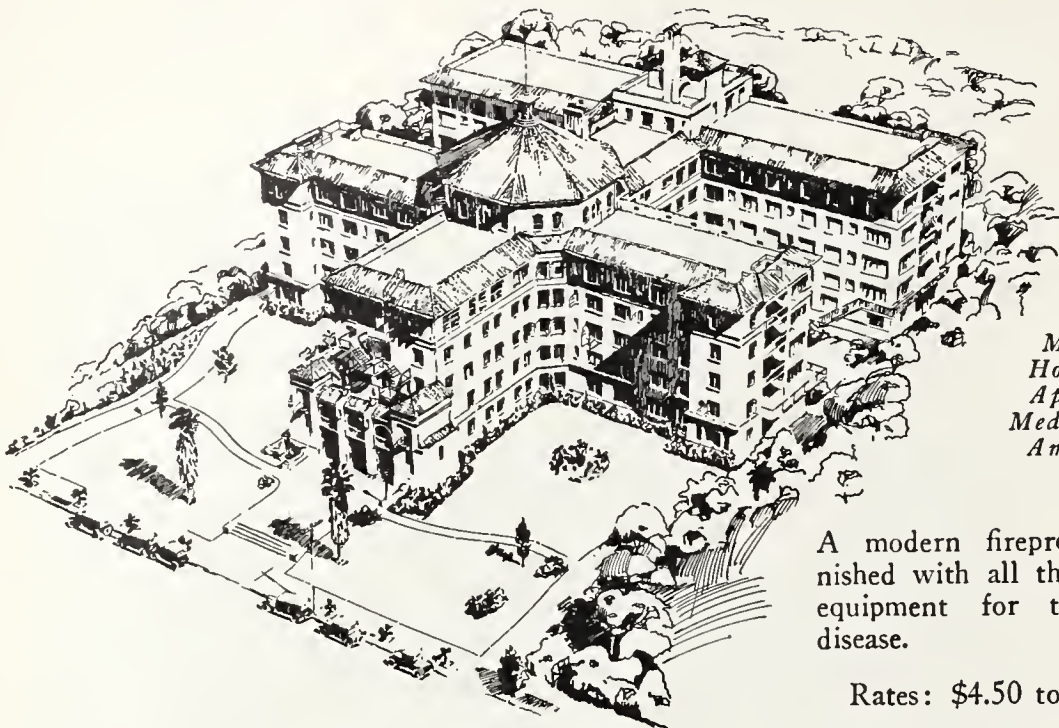
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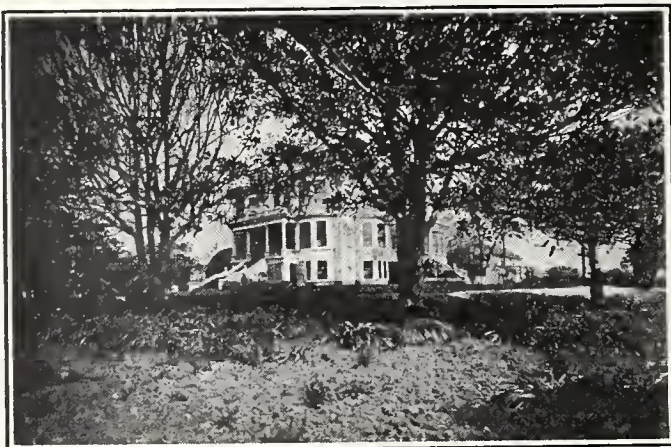
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A successful experiment looking toward the restoration of the old "preceptor" method of training family physicians has recently been concluded by the University of California Medical School, according to a report made to the journal of CALIFORNIA AND WESTERN MEDICINE, by Dr. W. J. Kerr, head of the department of medicine in the Medical School.

The "preceptor" method involves the training of future physicians for a specified time under the direction of another physician actually carrying on a practice. The system might be compared to an apprenticeship bridging over the gap between the acquisition of technical knowledge and its practical application.

President Ray Lyman Wilbur of Stanford in discussing the rejuvenation of the field training system by the University said: "The student trained in the medical classes or in the hospital never quite feels the full responsibility that must be his if he is to succeed in practice. There is

often more education in one patient handled with a full sense of responsibility than in a dozen handled in part, with the responsibility resting on someone else. It is an inspiration for any medical student to come in actual contact with the ordinary life of the practicing physician."

Experiments of this type, according to Doctor Kerr's report were carried out first in 1923, and have been continued since then. Dr. F. R. Fairchild of the Woodland Clinic says: "The scheme is not new. It is simply reviving a method of instruction that in the past was responsible for the production of that wonderful type of family physician, so much admired and so nearly extinct today." Univ. of California Clip Sheet.

Ethylene for Anesthesia (Kansas City Oxygen Gas Company)—A brand of ethylene for anesthesia—N. N. R. Kansas City Oxygen Gas Company, Kansas City, Missouri.—*Journal A. M. A.*, January 29, 1927.

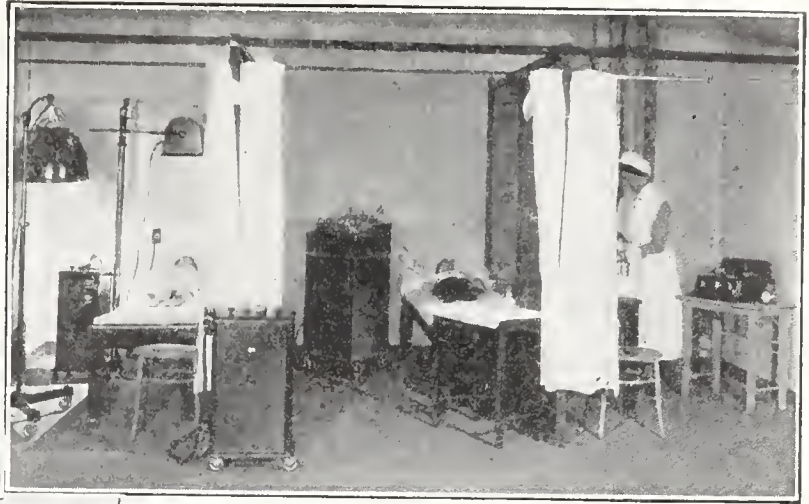
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These photographs are used through the courtesy of Northwestern University Medical School, Chicago. Above is a view of one section of the Physical Therapy Clinic, showing three of the treatment cubicles.

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IN the Dec. 11th issue of the Journal of A. M. A. were printed the Official Rules of the Council of Physical Therapy of the American Medical Association. These official rules "have been adopted primarily with the view to protecting the medical profession and the public against fraud, undesirable secrecy and objectionable advertising in connection with the manufacture and sale of apparatus and methods for physical therapeutic treatment."

Quoting further from the A. M. A. Bulletin of the House of Delegates: "It is hoped that the medical profession will give consistent support to this effort for sound therapy. Physicians may well follow in their choice of apparatus and in their work the opinions of the Council on Physical Therapy as to what is reliable."

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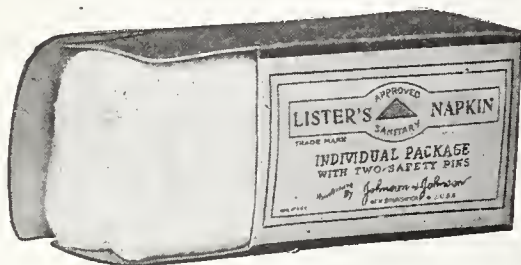
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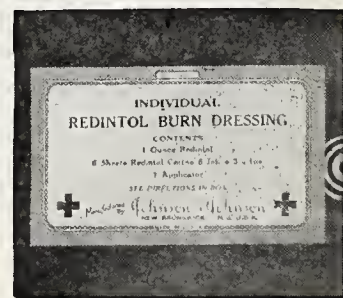
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BOOK REVIEWS

(Continued from Page 298)

there, may not be wholly endorsed by pathologists experienced in such work.

The book is well worth reading because of the excellent discussion of the fundamental principles of general pathology.

Researches on Hookworm in China. By W. W. Cook, J. B. Grant, N. R. Stoll and associates (Monographic Series, American Journal of Hygiene, Vol. VII, October, 1926).

This 400-page book constitutes the report of the China Hookworm Commission, which was carried out under the joint auspices of the Department of Pathology, Peking Union Medical College, and the Department of Medical Zoology, Johns Hopkins School of Hygiene and Public Health.

It is an exhaustive report useful to special students of the subject and of practical value in indicating methods of procedure for the eradication of hookworm in certain sections of China. There also is evidence accumulated in the report which ought to be detached from the voluminous mass of detail and made available for more general reading.

What a boon it would prove if someone with the knowledge, time and funds would abstract what is useful and applicable for bedside doctors from the many useful extensive articles published in the American Journal of Hygiene and other splendid publications now rarely seen by physicians and read by very few except those engaged in research work.

Rockefeller Foundation Annual Report, 1925.

A careful reading of a review of a year's work of this stupendous undertaking leaves one astounded at its vastness and the business-like methods employed to make the Foundation serve the expressed purposes of its creator.

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This fact is commented on by President Vincent in his

(Continued on Page 394)

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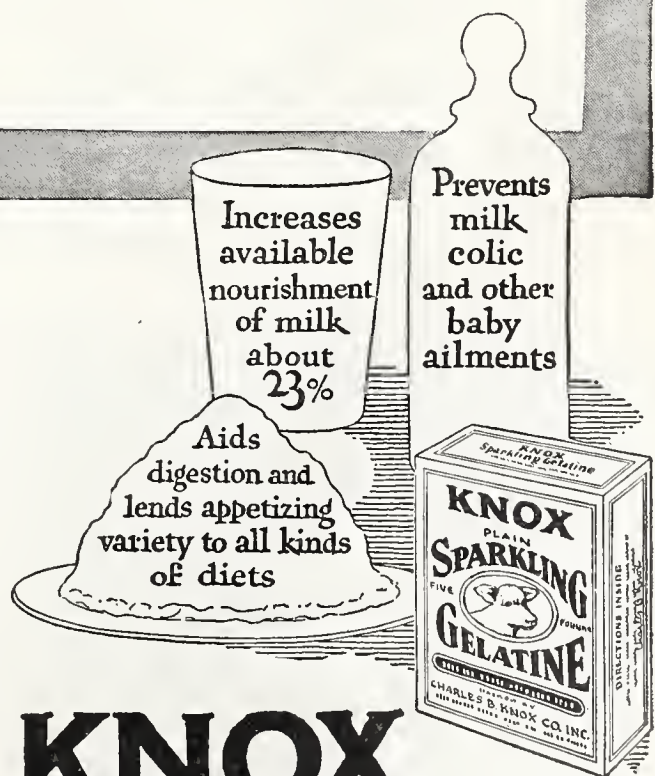
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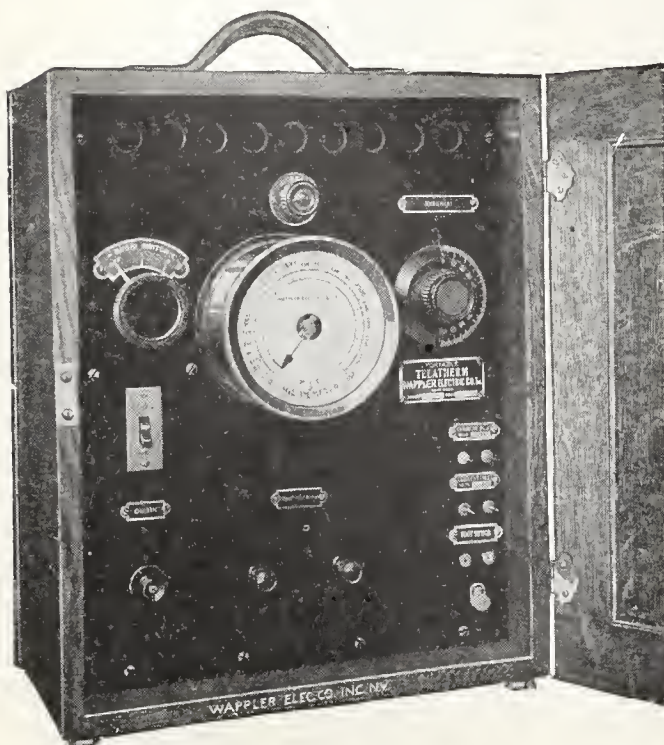
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Studies in Tuberculosis—A biologic method has been devised by Frederick Ebersson, San Francisco (*Journal A. M. A.*), for identifying specific skin-reacting substance in the blood serum of tuberculous patients and animals. A heat-sensitive skin-reacting substance of the nature of a toxin has been identified in the blood serum of tuberculous patients and guinea-pigs. It is not found in normal human or guinea-pig serum. The substance does not behave like tuberculin or its related elements which are heat-resistant, and it exists independently of these. It is present in largest amounts in far advanced tuberculous infections with profound toxemia, and is apparently destroyed by heating at from 60 to 65 C. for from twenty to forty-five minutes. In normal animals this unheated substance gives a positive skin test owing to its interaction with normal antibodies for tubercle products. The method devised for identifying this specific skin-reacting substance depends, in principle, on a living "indicator," the guinea-pig, which measures related or identical elements in the serum to be tested. The procedure was made possible by a previous demonstration that normal animals could be sensitized with fractional tuberculins prepared from nonprotein substrates. Skin reactions obtained according to the technique described in these experiments are referable to an addition or subtraction of one or more of the interacting substances present in tuberculous serum and in the tissues of the experimental animal. The heat-labile substance, probably a toxin, in tuberculous serums can be used as a measure of the circulating antibodies in normal and tuberculous persons. A test of this type may serve as an index of the bodily resistance to tuberculous infection in both groups. Certain theories and hypotheses regarding tuberculin and skin sensitiveness find controllable experimental evidence in the observations described. An explanation is offered for negative tuberculin tests in far advanced tuberculosis, and, furthermore, positive reactions with tuberculous serums in apparently normal persons are to be attributed to a toxin. Accordingly, the

results with the autoserum test of Lenz, with modified autoserum and with the Wildbolz reactions take on a somewhat different interpretation.

Carbon Dioxide Combining Power as Basis for Treatment in Eclampsia—The results of treatment in fourteen cases of eclampsia are reported by H. P. Wilson, Whittier, California (*Journal A. M. A.*). He gave varying quantities of 3 and 5 per cent solutions of sodium bicarbonate and 10 per cent glucose. This treatment raised the carbon dioxide combining power of the blood. In all cases the patient showed a distinct lowering of the carbon dioxide combining power of the blood plasma. Convulsions or pre-eclamptic symptoms disappeared with a return of carbon dioxide combining power to within normal or near normal limits, from 55 to 70. Practically all patients had acid urine, much albumin, considerable acetone and casts. Two cases showed an alkaline urine and a trace of acetone, with a low carbon dioxide combining power, which shows that in acidosis there is not always an acid urine and considerable acetone. All patients were treated intravenously as soon as fresh solution could be made up and sterilized. The carbon dioxide combining power was ascertained first, except in very serious cases in which an acidosis was assumed, and the carbon dioxide was secured after injection. A second dose was always based on the carbon dioxide combining power. A careful check was made throughout in order to govern the dose of sodium bicarbonate and not produce an alkalosis. The total dose of glucose for the patient ranged from 12 to 75 Gm., and the sodium bicarbonate from 6 to 40 Gm. Wilson asserts that it is possible to place these patients in condition for surgery and save both mother and child with little danger of a recurrence of convulsions. The only logical diagnosis of acidosis is possible by securing the carbon dioxide of the blood plasma. To treat a conjectured acidosis with unlimited sodium by mouth is not only dangerous, but not infrequently has led to an alkalosis, tetany, anuria and death.

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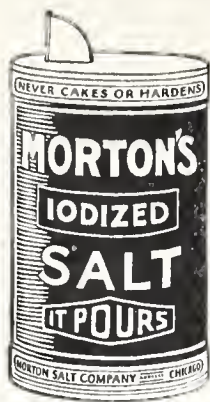
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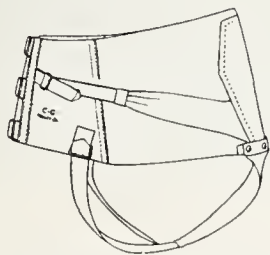
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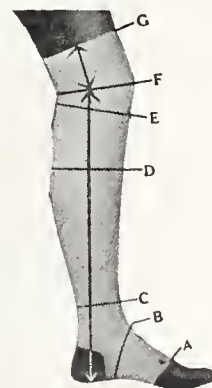


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CALIFORNIA AND WESTERN MEDICINE

VOLUME XXVI

MARCH, 1927

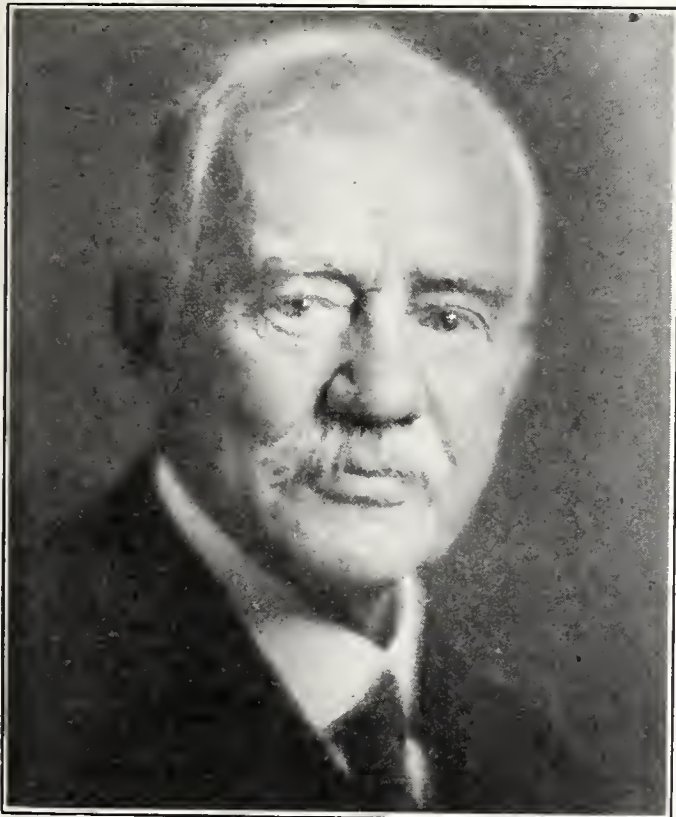
No. 3

THE FIFTY-SIXTH ANNUAL SESSION OF THE CALIFORNIA MEDICAL ASSOCIATION

LOS ANGELES BILTMORE, APRIL 25 TO 28

THE Los Angeles County Medical Association, through its committee of arrangements of the California Medical Association at Los Angeles, April 25 to 28 (inclusive), reports a splendid program for the meeting, in addition to the usual excellent routine work of the sections, the official business of the Council and House of Delegates. All of the committees announced in the last issue of CALIFORNIA AND WESTERN MEDICINE have their work completed or as far advanced as is possible at this date.

The session will really be opened on Sunday, April 24, by Howard A. Kelly, Professor Emeritus of Gynecology at Johns Hopkins. Doctor Kelly has been for many years a leader in Baltimore of the militant Christians who are striving for civic righteousness and religious living. He will occupy the pulpits of Los Angeles churches, morning and evening, Sunday, April 24. Hundreds of our fellows and guests will enjoy hearing this fine old Christian warrior from the pulpit as much or more than they will enjoy his address on a professional subject at the morning session on Wednesday. Howard Kelly is known to every medical man and woman in America, either personally or through his excellent textbooks on gynecology and abdominal surgery.



HOWARD A. KELLY

The official opening session will be held at the Biltmore Hotel Monday. President W. T. McArthur is always an interesting speaker and this year he will present some very important matters for consideration. President-Elect Percy T. Phillips will follow with a discussion of other matters of importance to all physicians.

The section officers have secured an unusual list of strong speakers. Donald C. Balfour of the Mayo Clinic will discuss "The Treatment of Gastric Ulcer." George Middleton of Salt Lake will consider "The Goiter Problem." R. S. Dinsmore of Cleveland will discuss "The Preoperative and Post-operative Care of Goiter Patients."

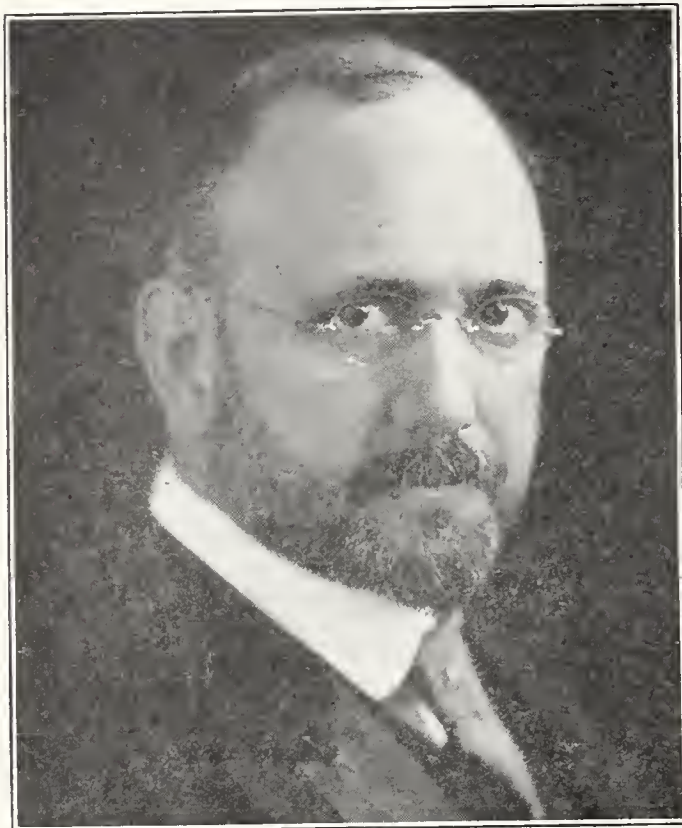
These men come as guests of the surgical section. H. J. Gerstenberger of Cleveland will be the guest

of the section on pediatrics. Charles G. Sutherland of Rochester and Charles F. McGuffin of Calgary, Canada, will be the guests of the section on radiology. Arthur L. Bloomfield, Professor of Medicine at Stanford, is the guest of the section on medicine. All of these men are outstanding in their several sections, and will take part in the discussions as well as giving their own addresses. The subjects of these addresses as well as a complete program of the entire session will be published in the next issue of CALIFORNIA AND WESTERN MEDICINE.

For the general sessions on Tuesday and Wednesday, the Los Angeles committee has provided Howard A. Kelly, Stuart McGuire of Richmond and J. B. Herrick of Chicago. Surgeon General Hugh S. Cumming of the U. S. Public Health Service and Hubert Work, Secretary of the Interior, expect to arrive from Honolulu in time for this meeting, and they have promised to be present if their

itinerary will permit. It is highly probable that both will come.

W. A. Evans, formerly Health Commissioner of Chicago, formerly Professor of Pathology at the University of Illinois, now Health Editor of the *Chicago Tribune*, the sanest writer of syndicate articles on health topics in America, will be the principal speaker at a large *public meeting* at the Philharmonic Auditorium on Tuesday evening.



W. A. EVANS

Doctor Evans has the peculiar faculty of making the medical point of view interesting and attractive to public audiences. Californians need particularly such messages as Doctor Evans gives.

The scientific moving pictures, which will be shown on Monday and Wednesday nights, is a feature never before tried at a California state meeting. No picture will be shown twice. Among those already selected by Henry Snure, chairman of the subcommittee on moving pictures, will be the Interstate Post Graduate Assembly European Clinic Tour of 1926, which shows hospitals, clinics and points of interest of this four. Further selection will be announced in the April issue of *CALIFORNIA AND WESTERN MEDICINE*.

It is hoped that the scientific exhibit may be made an outstanding feature of the meeting. Good space will be provided. Those wishing information should apply to W. H. Kiger, 523 West Sixth Street, Room 712, Los Angeles.

The commercial exhibit will be held at the Biltmore. It will excel that given there three years ago, which was of outstanding excellence. Address W. R. Molony, 304 South Broadway, Room 222, Los Angeles, for space.

Entertainment for visiting ladies will be pro-

vided for three afternoons. A reception will be given at the home of President and Mrs. W. T. McArthur, a visit to a working moving picture studio and a card party and tea at a country club.

The banquet and ball will be held at the Biltmore on Thursday night. It is planned that all of the living past presidents of the Association will be present. George H. Kress is in charge, a sufficient guarantee of its excellence.

C. G. Toland, chairman, and the subcommittee on golf have arranged for special games and prizes are to be awarded.

Clinics will be given in at least five hospitals, the hours ranging from 7:30 to 10.

Los Angeles welcomes the physicians of the Rocky Mountains and Pacific Slope for this meeting. It is rare indeed that a state association can present a program of such interest as is now assured. Every medical man and woman who can come will be amply repaid in rest, recreation, and professional benefit.

Complete announcement of all features will be made in the April issue of *CALIFORNIA AND WESTERN MEDICINE*.

The following is a list of some of the hotels of Los Angeles with rates European plan:

| | Rate Per Day |
|---|-----------------|
| Anditorium, Fifth and Olive..... | \$1.00 up |
| Ambassador, Seventh and Wilshire..... | 4.00 |
| Hotel Alvarado, 2065 West Sixth..... | 2.00 |
| Alexandria, Fifth and Spring..... | 2.50 |
| Biltmore, Fifth and Olive..... | 5.00 |
| Baltimore, Fifth and Los Angeles..... | 1.00 |
| Chapman, 301 East Fifth..... | 1.50 |
| The Californian, 1907 West Sixth..... | 2.50 |
| Hotel Chancellor, 3191 West Seventh Street..... | 3.00 |
| Chelsea Hotel, 504 South Bonnie Brae..... | |
|(This includes breakfast) | 2.50 |
| Hotel Cecil, 640 South Main Street..... | 1.50 |
| Hotel Clark, 426 South Hill Street..... | 3.00 |
| Continental, 626 South Hill..... | 1.00 |
| Christie Hotel, 6732 Hollywood Boulevard..... | 2.50 |
| Commodore Hotel, 1201 West Seventh Street..... | 2.50 |
| Congress Hotel, Eighth and Flower..... | 1.00 |
| Hotel Figueroa, 939 South Figueroa Street..... | 2.00 |
| Gothan, 975 Ingraham..... | 2.00 |
| Gates Hotel, Sixth and Figueroa..... | 1.50 |
| Hayward Hotel, Sixth and Spring..... | 2.00 |
| Haggards Bachelor, 320 West Fifth Street..... | 1.00 |
| Ingraham Hotel, 1045 Ingraham..... | 1.50 |
| King Edward Hotel, 121 East Fifth Street..... | 1.50 |
| Leighton Hotel, 2127 West Sixth Street..... | 2.00 |
| Lee Hotel, 822 West Sixth Street..... | 1.50 |
| Lankershim Hotel, Seventh and Broadway..... | 1.50 |
| Mayfair Hotel, 1256 West Seventh Street..... | 4.00 |
| Munn Hotel, 438 South Olive..... | 1.50 |
| The Men's Hotel, 928 West Eighth Street..... | |
|(per week) | 7.00 up |
| Miramar Terrace (American Plan), 2000 Miramar Street | 2.50 up |
| Hotel Normandie, Sixth and Normandie..... | 3.00 up |
| Northern Hotel, 420 West Second Street..... | 1.50 |
| Oviatt Hotel, 1315 South Flower Street..... | 1.00 |
| Hotel Park Vista, 626 South Alvarado Street..... | 2.00 |
| Ponet Hotel, 215 East Fifth Street..... | 1.00 |
| Hotel President, 907 West Second Street..... | 1.00 |
| Rosslyn Hotel, Fifth and Main Streets..... | 1.50 |
| Hotel Ritz, 813 South Flower Street..... | 2.50 |
| Savoy Hotel, Sixth and Grand Ave..... | 3.00 |
| Southland Hotel, Sixth and Flower..... | 1.00 |
| Shoreham Hotel (American Plan), 666 South Carondelet | 5.00 up |
| Stowell Hotel, 416 South Spring Street..... | 2.00 |

| | |
|--|------|
| Stillwell Hotel, 838 South Grand Avenue..... | 2.00 |
| St. Regis, Sixth and Witmer..... | 2.50 |
| Trinity Hotel, 851 South Grand Avenue..... | 1.50 |
| Van Nuys Hotel, Fourth and Main Streets..... | 1.50 |
| Women's Hotel, 639 South Grand Avenue..... | 1.00 |

THE ETIOLOGY AND PATHOLOGY
OF CHRONIC DEFORMING
ARTHRITIS

AS FORECAST BY CLINICAL AND LABORATORY
OBSERVATIONS†

By JOHN V. BARROW AND EUGENE L. ARMSTRONG *

THIS paper will confine itself to the clinical expression, therapeutic sign-posts, and laboratory study of 245 cases of chronic arthritis of the deforming type. The deformity produced is in the nature of bone destruction, compensatory hypertrophy, and spastic irritation to all component joint structures. Exostoses, lipping, spurs and contractures are common factors in the disease under consideration. Specifically, this study does not deal with any of the acute septic arthritides as occasioned by the acute streptococcic tonsil, the gonococcal genitourinary tract, or any bacterial inflammatory focus.

The arthritic process in these cases seems to violate the known laws of bacterial infections. It does not seem to be of the inflammatory habit but it is rather in the nature of a toxic process having lytic, allergic, irritative and proliferative powers. The destruction is largely lytic in nature. The toxin or organism or substance is irritative and produces a marked effect on every tissue involved in the total structure of the joint. The proliferative exostoses

are probably compensatory or, at most, simply the result of stimulation in a destructive area, accompanied by a generalized capillary stasis.

The pathologic change produced in the total joint structure indicates that the etiologic factor has proceeded from the marrow or end-arterial tissue toward the periphery. The central bone injury indicates blood-borne factors, viz., toxins with lytic destructive powers, or some organism capable of elaborating lytic, destructive or irritative substances. Clinical and therapeutic observations combine with those of the laboratory in tracing the origin of this thing or substance more plausibly back to the gastrointestinal tract than to any other system in the human economy. Toward the support of the foregoing contentions this study is earnestly directed.

We are not to be construed as announcing a known and proved etiology of this form of chronic disease. We think we have observed correctly certain constants, which by the mathematical law of choice and chance tend to point to the joint pathology as an end product of an etiology established elsewhere. We believe the entire human organism as a system is affected and that the joint symptoms and changes are the most predominant and outstanding expression in this systemic disease.

The etiologic factor is not an acute one. Its first influence is on normal physiology, and its diabolical clinical and pathologic manifestations are first noticed necessarily months to years after the causative factors have been steadily or intermittently at work. The etiology will be found in a chain of factors much more complex than staphylococci in a boil, diplococci in the meninges, or even streptococci on the heart valves. This disease attacks the whole body by systems. Clinically, first to show physiologic changes and derangements is the gastrointestinal tract.

Two hundred and forty-five carefully studied cases are reported here. By the complaints of the patients, by the physical examination and by laboratory and roentgen-ray demonstrations, 235 of the cases, or 96 per cent, were definitely gastrointestinal cases first. They might well have been placed into a great "colon conscious" group. The foregoing factor is one of the first "constants" in the study of this disease. The literature abounds in the confirmation of this statement by practically all authors in their study of chronic deforming arthritis of Ely's classification as type 2.

Table 1 shows the outstanding ailments accompanying the 245 arthritic cases studied here.

TABLE I—PRINCIPAL AILMENTS ACCOMPANYING
THE CASES OF ARTHRITIS

| | Number | Per Cent |
|---|--------|----------|
| Chronic irrititis and arthritis..... | 8 | 3.2 |
| Chronic tonsillitis and arthritis..... | 9 | 3.6 |
| Chronic bronchitis and arthritis..... | 10 | 4.0 |
| Chronic hypertension and arthritis..... | 12 | 4.8 |
| Chronic cholecystitis and arthritis..... | 23 | 9.3 |
| Chronic colon stasis and arthritis..... | 25 | 10.2 |
| Chronic appendicitis and arthritis..... | 35 | 14.2 |
| Chronic "colon conscious" and arthritis.. | 235 | 96.0 |

The principal presenting symptoms are disturbances in the colon by quantities of gas, which pro-

† Read before the Section on Pathology and Physiology at the Seventy-Seventh Annual Session of the American Medical Association, Dallas, Texas, April, 1926.

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Eugene H. Armstrong (2007 Wilshire Boulevard, Los Angeles.) M. D. Tulane University, New Orleans, 1920. Graduate study: Charity Hospital, New Orleans, La., two years. Present hospital connections: Medical Attending Staff, Los Angeles General Hospital (Junior); California Lutheran Hospital. Scientific organizations: Los Angeles County Medical Association, C. M. A., A. M. A., Physician and Surgeon Fellowship. Present appointments: Associate Professor Medicine, College of Medical Evangelists. Practice limited to Medicine and Diagnosis since 1922. Publications: "Intestinal Protozoa and Chronic Diseases, with Especial Reference to Chronic Arthritis," Iowa State M. J.; "A Clinical, Pathological and Operative Study of the Icterus Index," Am. J. Med. Sc.; "Further Clinical and Operative Studies of the Icterus Index," Am. J. Med. Sc.

duces discomfort and pain and which interferes by pressure with all the abdominal visceral actions. Abdominal tenderness over the affected parts, loss of appetite and often sleeplessness are common symptoms. The following were the bowel habits observed: constipation in 50 per cent of all cases; diarrhea in 10.9 per cent; constipation and diarrhea alternating in 10.7 per cent; regular bowel habit in 28.4 per cent.

All the foregoing physiologic and pathologic disturbances came on slowly and reached their absorptive culmination at the patients' average age of 46.9 years. This age is another approach to a "constant." At such an age ample time has been given for the systemic absorption of retained residue and elaborated foreign proteins held in the mechanically injured and deranged gastrointestinal tract. The effect on the human organism is to be presumably good or bad according to whether the absorbed substance is metabolically good, a rejectable waste, or a combatable poison. In dealing either with waste or with poison, the functions of elimination and resistance are taxed, and if either function fails, some organ or system of organs must bear the burden. The reaction of our organism to proteins unsuited to our economy is somewhat known through anaphylaxis and allergy. The colon in particular and the remaining intestinal tract in general constitute the incubator, reservoir and distributor of the endoprotein bodies and by-products of the billions of protozoa that have found lodgment with us and that have succeeded in making out of our digestive tube their permanent home.

Their bodies are protein, each possessing its complete system. Every organism must possess its billions of protein molecules with characteristic resistance to us. These resistant proteins are logically toxic to us unless our own digestive mechanism can so change their chemical structure that their absorption is rendered harmless. Woe is ours, if our protective juices and detoxicating apparatus have been put out of order in this biologic fight. Absorptive toxic symptoms in these patients give us another "clinical constant" in this disease.

While seeming to have drifted from our subject, in considering the problem of the elaboration and absorption of protein bodies, possibly toxic to our own economy, we have prepared ourselves for the incidence of protozoan infection in those patients having chronic deforming arthritis. In other researches² we have emphasized the extremely high incidence of infection by protozoa in all cases of this type of joint disease. Recently, Smithies,³ writing on the subject of protozoa, says that our work has not been corroborated by others, while only a few paragraphs farther on, he himself, by a case report, corroborates them. This present research confirms our former ones. Kofoed has stated that his laboratory has made sixty-four analyses, in a single case, before finding the ameba. Our search has been by no means thus exhaustive. However, out of 245 cases we have 94 per cent positive for protozoan infection concomitant with chronic arthritis. There were only fifteen cases found negative, and certain of these with only the ordinary search permitted by noncooperating patients. Such a percentage of

positive results entitles us again to believe that we are dealing with "a constant" belonging to a biomathematical law.

Table 2 gives a reasonably accurate zoological classification of the protozoa found, with their incidence percentage in the 245 cases.

TABLE 2—PROTOZOA

| | Number | Per Cent |
|--|--------|----------|
| <i>Ameba histolytica</i> or <i>dysenteriae</i> | 135 | 56.0 |
| <i>Chilomastix mesnili</i> | 123 | 50.0 |
| <i>Trichomonas intestinalis</i> | 20 | 8.0 |
| <i>Giardia</i> or <i>lamblia</i> | 9 | 3.7 |
| <i>Ameba coli</i> | 6 | 2.4 |
| <i>Ameba councilmannii</i> | 5 | 2.3 |
| <i>Craigia</i> | 7 | 2.8 |
| Mixed cases..... | 69 | 28.0 |

The history of these patients was carefully obtained as to their arthritic involvements having followed some acute septic infection. In 93.5 per cent of the cases there was no history traceable to a previous acute infection. In thirteen cases, or 5.3 per cent, it began either during or culminated within three months after an attack of influenza. It seems to have begun with acute tonsillitis and sinus disease in two cases, and with measles in one. In whatever stage of the disease, an attack of influenza or even the usual respiratory infections made the ailment worse.

The condition of the teeth and the tonsils was carefully noted. Eighty patients had had all their teeth extracted when they first presented themselves to us for treatment. Only two patients felt that this procedure had helped materially, and in none had it stopped the course of the disease. Ten came with bad teeth, and 158 showed teeth in good condition. The records for tonsil extirpation are not flattering. One hundred and forty-eight, or 60 per cent, had had their tonsils removed, and only one of the number felt that the disease had been checked by the operation. Seventy-five patients had normal tonsils, and eighteen showed a diseased condition. Septic foci in tonsils and teeth were neither left nor condoned, but their removal made no monumental difference in the progress of the disease, either prior to or during our treatment.

The injury to the intestine was seen in the cases in which operation was done for the restoration of normal physiologic function. The ulcers were seen producing their dire mechanical blocks in all stages. Protozoan ulceration and invasion give very little peritoneal or localized pain. An ulcer may be protected from rupture by the thinnest one-celled veil of serosa. Over this point, as a vulcanizing patch, nature throws out a quantity of fibrinous deposit. The next step for protection is the organization of this patch by the penetration of fine capillaries. The end product is a membrane with all the possibilities of contracting sheets and bands. The resulting deformity varies in its effect by reason of its position and extent. The ileocecal juncture, cecum, hepatic flexure and sigmoid flexure are probably the areas most often harmed. The colon may be rolled, twisted, kinked or practically cut off by this mechanism. The appendix may be kinked, occluded, tied to some other viscus or may have its circulation so shut off that gangrene, perforation and peritonitis may result. If this is protozoan the process will be

insidious, with a minimal amount of pain and classic signs. The leukocytes will not be high, and the polymorphonuclears will be depressed. The same picture will obtain if a viscus perforates in any part of the intestine. Near perforation with its subsequent adhesions may furnish the bad mechanics that give the ideal protozoan incubator. What greater source for endotoxins could be provided than by such an injured intestine? Here is the source of the Jackson's veils and the embryonic shortcomings of our abdominal viscera. This pathologic condition may and often does begin in early childhood. It is expressed clinically by cramps, reversed peristalsis, stasis, constipation and diarrhea, lack of fluid absorption with its attendant "acidosis," interference with appetite, and an early "colon conscious" individual. Trace this from early life to the age of 45, and one can readily understand the great number of clinical derelicts encountered in middle life invalids. One can also readily see why proper surgical correction in these cases is so prolific of real benefit in health restoration.

Such a colon incubator contains within its mucous membrane and walls, and in its lumen, literally billions of these relatively large protein-moleculed protozoa. Kofoed has shown that their growth is in showers. Either their own excretory products or our resisting antibodies kill these organisms in showers as they have grown. This biologic cycle explains well the fulmination of clinical symptoms. When great numbers are killed by treatment the joints become worse clinically in the same manner that hyperthyroidism becomes exaggerated on excessive manipulation of the gland.

As treatment succeeds in clearing the colon, there is a commensurate amelioration of all symptoms. However, because of the chronically produced pathologic condition, we must often wait for months to two or three years for the best and proper results of treatment.

Symptomatically these patients are often greatly depressed and highly nervous. The metabolic processes seem to have become more or less exhausted. There is a low blood pressure generally, and lassitude goes with muscle exhaustion. Around the affected joints the muscle and tendon spasm expresses the metabolic strain, not greatly unlike the exhaustion of tissue in such diseases as pernicious anemia. The very choicest gastrointestinal clinics are obtainable from these patients in the orthopedic wards of our hospitals. The acme of this mechanical and absorptive pathologic process is reached at about the age of 45 years. The physical examination corroborates this muscle tiredness, intestinal tenderness, gassy abdomen, glandular exhaustion, low blood pressure, iritis,⁴ neuritis, arthritis and still other products of these numerous factors.

The laboratory is a further confirmation. The liver strain is expressed by a rise in the icterus index, as shown by an average of 9.5 in the 128 cases measured. The hemoglobin was fair at an average of 75 per cent. There was little high grade anemia. The red blood cells averaged 4,207,000, and there were none of the exhaustive forms as in the hyperplastic anemias. The leukocytes were depressed to an average of 6827 in the 245 cases. There were

seventy cases out of the 245 in which the leukocytes were 6000 or below, and thirty-one cases in which the count was below 5000. These figures are really too high, because a goodly number were taken during colds and acute bronchial conditions. This depression is probably greatest in the polymorphonuclear neutrophil cell.

The polymorphonuclears alone averaged 60.2 per cent. There were fifty-eight cases in which the polymorphonuclears averaged 55 per cent, and in thirty-three cases the average was below 50 per cent. There was no eosinophilia, even to the suspicion of a rule, in these protozoan laden cases, as has been recently reported.² The urine often shows indican, but no other significant bodies. The stool often contains a fine, needle-like crystal. It is not a coffin-lid crystal. It is probably a calcium soap.

These crystals exist singly and in clusters, and appear quite insoluble in the watery content of the bowel. If this is an insoluble fatty combination with calcium, we can the better account for the calcium poverty of these cases. We are hereby furnished the connecting link between chronic arthritis and certain metabolic deficiency diseases.

These stools have a specific gravity heavier than normal, and usually sink readily in water.

It is probable that this phenomenon is accounted for by the lack of bacterial gas producers. Kofoed has recently shown that the hydrogen ion concentration influences protozoan growth markedly.

In eighty cases the phenolsulphonphthalein kidney function test averaged 53.1. The nonprotein nitrogen in fifty-one cases was 33.1. The blood sugar in the cases read was 104.2. This does not include the one case of diabetes in the series.

The joints attacked in the order of their frequency were fingers and hands, knees, neck and spine, ankles, hips, elbows, shoulders, wrists, sacroiliac, feet and toes. None seemed to be specially selected and often the disease was generalized.

The treatment necessarily calls for our best and broadest clinical judgment, for it must embrace practically every phase of the gastrointestinal tract. It comprises every angle in the parasitic management from the earliest to the most delayed chronic injury. It may be grouped under (1) parasitic, (2) physiologic, (3) corrective, and (4) recuperative. Under parasitic treatment we must determine whether the infection is relatively recent or definitely chronic; whether ulcers or adhesive bands have deranged the function; whether the generalized inflammation has produced a dysentery or obstructing bands have produced injurious stasis. If the invasion is acute and extensive there is probably dysentery to combat. If it is slow and adhesion forming, a stubborn constipation is the problem. If pocketing and stasis have been produced in such a way as to encourage great growth and subsequent dissolution of organisms, the endotoxic factor with its absorptive, allergic problems are involved. The latter factors are probably most concerned in the matter of neuritis, iritis, arthritis, the anemias, and kindred clinical expressions.

These problems are far too numerous and prolific for the scope of this paper. We shall dwell chiefly on the ones we consider of greatest value to

the clinician, viz., parasitic and physiologic. Under the former we place all efforts at killing the parasites or removing them from the body where their harmfulness to us is nil. Under the second, or physiologic, we shall discuss the means of correcting faulty mechanics and restoring normal function.

Of the parasitocides used there is not one specific. Ipecac, its alkaloid, emetin, and its salts, emetin-bismuth iodide, and the periodide are the most useful in these infections and by far the most helpful in all arthritic cases. The treatment is usually begun with emetin hydrochloride, one-third grain (0.02 Gm.) by deep hypodermic injection on alternate days. If the case is severe the injection is given daily. After the third injection the dose is given intravenously. This treatment is kept up regularly for about three weeks, when the interval of doses is increased to twice weekly for another two or three weeks; then a weekly dosage is used for a period of a month or two. If muscular weakness develops in the course of treatment the drug is discontinued for whatever period is required by the patient's strength and resistance. Usually as a safeguard against muscle tiredness we give weekly or biweekly intravenous injections of the tricarodylates of iron. This has a wonderfully tonic effect.

Often coincident with the emetine treatment, or entirely in place of it, the patient is given massive doses of salol-keratin coated (5 grain, 0.3 Gm.) ipecac pills. Usually six 5-grain pills are given at 1 o'clock in the morning. Everything should be arranged for the patient's comfort and the provocation of sleep, following this administration. An ice bag is applied to the epigastrium and the patient is requested to rest quietly on the right side. Each night this dose is increased by two pills, until the maximum dose of twelve pills is given. If fairly well tolerated the dose is then stepped down nightly by two pills, until two per night is reached. The nurse must be watchful that the pills do not pass through the bowel undissolved. However, the central effect of ipecac is usually definite enough to tell the physician that absorption of emetin has taken place. Sometimes an opiate is given to prevent nausea, but often this drug defeats the very purpose for which it is given.

At times the duodenal tube is passed, and when it has reached its home we introduce from one-half to 1 drachm (2 to 4 cc.) of the fluidextract of ipecac, mixed with 4 ounces (120 cc.) of salt solution. This solution is further washed in with a few more ounces of salt solution. The treatment is a rather heroic one, but has a good effect in stubborn cases. The same method is used with neoarsphenamine, 0.75 Gm. being given in 6 ounces (175 cc.) of salt solution for both amebiasis and giardiasis. We repeat the dose about every fourth or fifth day for from three to five doses.

The next form of ipecac frequently used is the emetin bismuth iodide. This is generally given in a 3-grain salol-keratin coated capsule at midnight, with the same technique used as for the ipecac pills. From six to ten nightly doses are often more than can be tolerated. We never hesitate to discontinue temporarily any treatment that is not well borne. When any muscle tiredness or weakness indicates

emetin saturation the drug should be completely withdrawn until all lassitude subsides. We hear much about the depressing action of emetin on heart muscle. We regard this danger as having been highly exaggerated. The authors' cardiographic reading, after emetin was taken, was better than before its administration. Further research on this subject is in progress.

We must not leave ipecac without giving a combination used by the authors almost routinely from the first because of its splendid laxative action in the constipation cases. It consists of a capsule of calcium phosphate, 4 grains (0.25 Gm.) and alcresta ipecac, 6 grains (0.4 Gm.). This dosage, three times a day before meals, is a wonderful adjunct as a chronic treatment in these cases of constipation. For convenience we have called it "Calcresta." It may be obtained in capsule combination from the pharmaceutical house. It is worth many times its weight in spinach, and if used chronically will relieve and cure many cases of constipation and coincidentally furnish a most excellent liver stimulation.

Arsenic is the second greatest parasitic weapon. Neoarsphenamine in varying dosage both by duodenal tube and by usual intravenous administration is generally helpful. Kofoed has recently shown this drug to be highly lethal to protozoa in vitro at about 1:145,000.

The foregoing is probably the most powerful parasiticide in our possession. Our method of administration is that which is familiar to every physician. Recently stovarsol has come in for much praise by oral administration. In the acute colitis cases we have found it of considerable help. Patients having stasis or hepatitis get an early and embarrassing arsenical saturation. The dermatitis readily yields to sodium thiosulphate intravenously and by mouth, and probably no harm is wrought; but we regard the drug as bearing a high degree of watching in its administration. Johns and Jamison⁵ have recently reported favorably on this drug in acute cases. Other remedies, as chaparra amargosa, sulphur, and bismuth, are used at times. Enemas of potassium permanganate, 1:5,000, are efficacious. De Rivas⁶ has used the thermal death-point of 47 C. in colonic and duodenal lavage to good advantage. Every effort is made to restore the normal bowel function. When the roentgen ray has demonstrated ileal stasis, cecal retention, and long continued colon delay, we realize the futility of drugs alone, and then call for corrective surgery. If the roentgen-ray study shows a delay of from five to ten hours in the ileum after the stomach has emptied; if squarely segmented barium masses remain for days in a clubbed adherent or kinked appendix (we recently observed one for twenty days), or if there is a pocketed, adherent cecum with days of stasis, or if there is other physiologic evidence that mechanical injury to the normal intestinal action—eliminative or absorptive—has been wrought, then this case requires corrective surgery. When normal function has thus been established the routine medical management must be pursued as the clinical condition demands. Orthopedic help is of little value, if we are to permit the injurious process to go unimpeded. Orthopedic treatment must necessarily fail if it makes no

attempt to stop the cause of the deforming pathologic condition. The medical management detailed above does not in any way militate against orthopedic management. However, the proper understanding of the other faulty clinics of the patient may modify the application of exercises, rest and other physiotherapeutic measures. Knowledge of these conditions may solve some of the complications of fractures. In the light of this presupposed etiology some of the long chronic accident cases which have resulted from trivial injuries are well explained. The therapeutic test will complete the proof in the percentage of cases high enough to satisfy any faithful, observing and conscientious clinician.

Before giving the results of the treatment in this series of cases, we desire to call attention to the delayed results in this, the most chronic of diseases. Both patient and physician must learn "to labor and to wait." The clinical relief may be weeks, months or even a year or two in manifesting itself. We have had patients under months of faithful and to us nerve exhausting treatment without much to encourage us in the way of relief. They have been sent away for a period of rest and have returned months later greatly improved and bearing the enlightening information that their improvement or cure was due to prayers, orange juice, or some simple change of routine life.

This experience has occurred often enough to make us certain of the therapeutic value of the treatment we have carried out. We have turned this experience into good clinical account, and by passing it on to our patients and other physicians we believe we have turned their aim from the decoy to the real game in question.

Dietary treatment has failed to yield any measurable results. We cannot agree with Pemberton⁷ that the glucose tolerance of the blood bears any definite relation to either etiology or treatment of this type of arthritis. Schmitt and Adams⁸ of the Mayo Clinic arrived at the same conclusion.

Of our total group of cases 171 received only medical management. Parasitic treatment played the leading rôle, but in no case have we denied our patients any clinical aid calculated to enhance normal function. We therefore utilized surgery in 15.5 per cent of the cases.

The end products of treatment are hard to estimate, because no two patients ever were the same clinically from any disease to which the human organism was ever heir. We have tried to evaluate results as follows:

1. Excellent has meant well-established improvement conceded by patient, friends, neighbors and, most important, by other physicians. Some of these cases might well be termed spectacular.

2. Good covers all those cases in which pain has ceased, health improved, joints more usable, and the "carry on" feeling has begun to return to normal.

3. Fair embraces those cases in which we can see some definite clinical improvement, but in whom there is still much to be desired.

4. The fourth group includes those in whom there was no benefit at all clinically and death or down-

ward progress of the clinical course was self-evident. There were fourteen of this group. Four died from intercurrent pneumonia of pneumococcal origin, and one died from true angina pectoris. We had thirty-six cases which we felt could fairly be classed as wholly inadequately treated.

Our series of fairly treated cases is 209. Of this number we were able to classify sixty-four, or 30.6 per cent, in the group of excellent results. On the basis of the entire series of 245, this percentage is 26.1. In the group of good results there were eighty-eight, or 42.2 per cent of the well treated and 35.9 per cent of the entire series. In the group of fair results there were forty-three, or 20.5 per cent of the well treated or 17.5 per cent of the entire series. We are thus certain of clinical benefit in 93 per cent of the cases treated or of 77 per cent in the entire group seen. We realize that this series is very small and that the time limit for end products is by no means in sight. However, the clinical results to us and our patients have been as a rule so gratifying that we do not hesitate to venture this forecast and place it into the hands of careful clinical investigators for both use and criticism. For usefulness to you and your patients we can recommend it most highly in a disease for which we have heretofore done but little. For criticism without personal knowledge or investigation, we are certain it will prove a wonderful stimulus to you. For your approval after your honest trial and investigation, we are willing to rest our case.

In conclusion, we wish to cite the tendency of the clinical factors to approach mathematical constants in our study of the foregoing cases of deforming arthritis. To be more explicit, these factors may be specifically enumerated for further observation and criticism as follows:

1. This type of bone and joint disease is not of the inflammatory type, as we are accustomed to see from bacterial invasion.

2. The disease is of a systemic nature as taken from its metabolic exhaustive syndrome, as might well be expressed from slow stimulation, followed by exhaustion.

3. There is evidence in the liver and bone marrow that endotoxin, chemical bodies, or even organisms themselves, originate in the intestinal tract, and, by this same capillary stasis, lodge, influence and produce this condition in bones and joints.

4. This contention is further supported by the exhausted vitality, "colon consciousness," digestive unrest and often deranged intestinal mechanics.

5. There is a depression in the action of the bone marrow activity, as shown by a tendency to leukopenia and polymorphonuclear poverty.

6. The stool shows fatty-like (calcium) crystals and an infection by protozoa in a percentage far beyond coincidence and easily approaching a mathematical law.

7. The therapeutic proof forecasts this protozoan etiology in a highly satisfactory manner, and in at least two cases the pathologic condition has been shown by the finding⁹ of the organisms in the diseased bone tissue.

8. Negatively, but none the less constant, is the

failure of the removal of teeth, tonsils, and well-established bacterial foci, to stop the pathologic and clinical course of the disease.

(Manuscript written by J. V. B.)

REFERENCES CITED

1. Ely, Leonard: Second Great Type of Chronic Arthritis, J. A. M. A., November 24, 1923.
2. Barrow, J. V.: A Clinical Study of Intestinal Protozoa Based on Seven Hundred and Twenty-Five Cases, Am. J. Trop. Med. 4, No. 1, January, 1924. Barrow, J. V., and Armstrong, E. L.: Intestinal Protozoa and Chronic Diseases, with Especial Reference to Chronic Arthritis, J. Iowa State M. Soc., October, 1925; Intestinal Protozoa and Chronic Diseases, with Especial Reference to Chronic Arthritis, Illinois M. J., June, 1925.
3. Smithies, Frank: Protozoiasis Occurring in Temperate Zone Residents: A Study of Two Hundred and Sixty-Five Instances with a Discussion of the Associated Digestive Malfunction, Am. J. Trop. Med. 6, January, 1926.
4. Mills, Lloyd: Amebic Iritis Occurring in the Course of Nondysenteric Amebiasis, Arch. Ophth. 52, No. 6, 1923.
5. Johns, F. M., and Jamison, S. C.: The Treatment of Amebiasis by Oral Administration of Stovarsol, J. A. M. A. 84: 1913, June 20, 1925.
6. De Rivas, D.: The Effect of Temperature on Protozoa and Metazoan Parasites and the Application of Intraintestinal Thermal Therapy in Parasites and Other Affections of the Intestine, Am. J. Trop. Med. 6, January, 1926.
7. Pemberton, Ralph; Cajori, F. A., and Crouter, C. Y.: Influence of Focal Infection and the Pathology of Arthritis: Results of Experiments, J. A. M. A., December 5, 1925.
8. Schmitt, O. G., and Adams, S. F.: The Association Between Diabetes Mellitus and Chronic Infectious Arthritis, J. A. M. A., February 20, 1926.
9. Kofoed, C. A.; Ely, Leonard, et al.: The Ameba as the Cause of the Second Great Type of Arthritis, California State M. J., February, 1922.

Whose job is health education? asks Merrill Champion (Publications, Massachusetts Public Health Department), who answers in part:

"When you come to think of it, the success of public health work of every kind depends upon health education. Even the abatement of nuisances is truly successful only if the offender and the public are educated to a higher standard for the future. In this sense, then, everyone engaged in public health work is to a greater or less extent a health educator. It is worth while to enumerate some of those who may with reason be included in the ranks of those teaching health. The health officer surely belongs there as does the public health nurse. The nutritionist, the dental hygienist, the physical educator, the health visitor, the visiting teacher, the right sort of social worker, the physician and the dentist, belong too in the front rank if they can get away from obsessions engendered by previous exclusive attention to pathology. Then, of course, there is the school-teacher, general or special. Lastly, and potentially most important of all, there are the parents.

"This makes a long list. It raises the question whether, with so many sharing the responsibility, failure is likely because of lack of concentration. This criticism would hold good if health education were strictly a matter of the conscious application of approved pedagogical principles. As a matter of fact, however, this is not so. The list of health habits that we can be reasonably sure of is relatively a short one. Probably at least some of the things we have stressed so confidently and dogmatically in the past have only a remote bearing upon health."

What history we have of man is largely a record of discontent. In the main, man's activities are but reactions to his discontent. If and when he becomes contented, he usually goes to sleep. The greatest urge to accomplishment is dissatisfaction with things as they are.—*Canad. M. A. J.*

THE OUTLOOK FOR THE DIABETIC

By ELLIOTT P. JOSLIN

New England Deaconess Hospital, Boston

(Continued from February, 1927, Page 182)

Classification of Supposed Diabetics—With the help of my student friends, Mr. Alexander Marble and Mr. Richard Middleton of the fourth year class of the Harvard Medical School, I have spent spare summer evenings in personally recording the classification of each one of the diabetics I have seen since 1898. Classification of the diabetic is still puzzling and in fact is quite as difficult as it was years ago. Despite the aid of tests for blood sugar one runs across a great many patients who have lived so long that the disease appears "burned out," and about the only remains of it one finds are the calcified arteries which represent the ashes. An infection will make these latent cases apparent. Then, too, there is another group who evidently have never been severe, very likely were educated in the tenets of the Allen School, originally were fasted for a day or two, and have held to a Spartan régime ever since. These patients usually have a urine which is sugar-free and before a meal the blood sugar is almost normal, and not a few of them show a normal blood sugar following a meal. One hesitates to give a liberal carbohydrate meal, much less a glucose tolerance test, to these "faithful" merely to gratify a classification whim. Then there is the group of patients in whom the disease was diagnosed very, very early, by reliable physicians, was probably unmistakably present, yet actual proof of it is wanting now. Thus a vivacious Miss, whose glycosuria was 1.7 per cent in my own laboratory when I first saw her in 1919 and later decreased to the merest trace with diet, came to my office this month. When her diabetes was detected in 1917 by the late Doctor Koplik, whose name we all recognize, he kept her out of school for a year and the sugar fell to a mere trace. For the following four years she was on a rigid diet, but now before lunch the blood sugar is 0.10 per cent, and one hour after a characteristic boarding school girl's lunch of a chicken salad sandwich, hot chocolate, ice cream with fudge marshmallow, it rose to but 0.12 per cent. Is she, was she a diabetic or a renal glycosuric? These baffling situations arise in selecting the group of true diabetics. After all is said and done, can it be that in the past we have builded better than we knew? Is it not possible that diabetes may "burn out" in the young, as well as in the old, if we allow the element of time to work?

TABLE 6

True Diabetics—Time and death are great classifiers, and Table 6 shows this very plainly. The first 1000 supposed diabetics coming for treatment contained 906 true diabetics, but this number has decreased in succeeding thousands so that in the fifth at this writing the true diabetics number 809. As time goes on undoubtedly there will be transfers to the true diabetic group from the other groups, particularly the "unclassified" group. I do not think the group of true diabetics will ever grow as large in the fifth thousand as it was in the first, because

TABLE 6
CLASSIFICATION OF 5000 SUPPOSED DIABETICS ¹

| TRUE DIABETES | | | | | POTENTIAL DIABETES | | | | RENAL GLYCOSURIAS | | | | UNCLASSIFIED | | | |
|--------------------|-------------|------|-------|---------------|--------------------|------|-------|---------------|-------------------|------|-------|---------------|--------------|------|-------|---------------|
| | Num- ber | Dead | Alive | Un- traced | Num- ber | Dead | Alive | Un- traced | Num- ber | Dead | Alive | Un- traced | Num- ber | Dead | Alive | Un- traced |
| 1 to 1000 | 906 | 716 | 164 | 26 | 13 | 1 | 12 | 0 | 0 | 0 | 0 | 0 | 81 | 31 | 41 | 9 |
| 1001 to 2000 | 865 | 510 | 313 | 42 | 11 | 0 | 10 | 1 | 5 | 1 | 3 | 1 | 119 | 14 | 90 | 15 |
| 2001 to 3000 | 834 | 245 | 515 | 74 | 26 | 2 | 23 | 1 | 15 | 2 | 12 | 1 | *125 | 7 | 102 | 16 |
| 3001 to 4000 | 843 | 157 | 608 | 78 | 42 | 0 | 37 | 5 | 8 | 1 | 6 | 1 | 107 | 5 | 89 | 13 |
| 4001 to 5000 | 809 | 74 | 677 | 58 | 47 | 0 | 47 | 0 | 13 | 0 | 13 | 0 | 131 | 5 | 117 | 9 |
| Total | 4257 | 1702 | 2277 | 278 | 139 | 3 | 129 | 7 | 41 | 4 | 34 | 3 | 563 | 62 | 439 | 62 |

* One diabetes insipidus.

¹ Minor changes in this table must be made later.

it is my impression—and I think the medical directors of insurance companies hold the same opinion—that more doubtful diabetics are coming to light now than ever before. Rarely a case will be transferred from the diabetic group to one of the other groups, but I shall certainly be very cautious before I allow a child to qualify as a diabetic of ten years' duration unless he or she fulfills all the requirements. This table shows that of the true diabetics more than two-thirds are alive, and if I add 500 or 600 recent cases the living percentage will be still higher.

The tracing of diabetics for end results is enticing even if it is as expensive as most sports. So far I have traced 93 per cent of my first 5000 cases and have given up as "untraceable" but 1 per cent. Of the 395 children all have been traced.

By a true diabetic I mean in the first place a patient who shows a considerable glycosuria with a percentage of sugar in the blood of 0.17 per cent or more. In the older cases evidence of considerable sugar in the urine, which was evidently related to diet, justifies the diagnosis, especially when taken in connection with the further history of the case. A normal fasting blood sugar, but with proof of considerable sugar in the urine, varying with the diet, would establish a diabetic's identity, and so would a history of a moderate glycosuria if the fasting blood sugar was 0.14 per cent or above. In any series of 1000 cases one is struck by the number of patients who gave a history of recent onset, yet with repeated questioning symptoms are disclosed which would indicate that the disease had begun in a mild degree years before, but only recently flared up with an infection. Just as the beginning of the disease in this group is easily overlooked, so the end of the disease is overlooked in the "burnt out" cases, because the complications or intercurrent diseases, such as cancer, are so much more important and this displaces diabetes on the death certificate.

Potential Diabetics—A potential diabetic is a patient with glycosuria closely related to the diet, who easily becomes sugar-free with slight restrictions and

whose blood sugar is below 0.14 per cent fasting and never reaches 0.17 per cent after a meal. This group is constant in the tabulation for the first and second thousand patients, doubles, trebles, and quadruples for succeeding thousands. In connection with the 395 examples of true diabetes in children some sixty-eight other supposed diabetics were referred to me, and of these fourteen were placed in the group of potential diabetics. Thus far in but one instance has there been evidence that a case once carefully classified as a potential diabetic later became a true diabetic. Possibly case No. 129 as well should be added.

I doubt if this constancy of classification will hold for adults. With the children it is important, because such facts are a comfort to the family and the physician.

The potential diabetics among my first 5000 cases number 139, and of these but three have died and but seven are untraced. It would appear as if a diagnosis of potential diabetes predisposed that individual to health, and that he was a good risk for an insurance company.

Renal Glycosuria—Twenty years ago renal glycosurics were rare and I did not recognize one as such in my first 1000 cases which ended in the year 1916. Doubtless a certain number were overlooked. In the second thousand they are represented by five cases and in succeeding thousands the number rises as high as fifteen. The total number for the 5000 is forty-one cases, of whom four are dead and three remain untraced. One of the four cases who died succumbed to an automobile accident while coasting, and the other three to cardiac disease, cirrhosis of the liver, and following a gall bladder operation.

The characteristics of a renal glycosuric are now generally recognized to be (1) a permanent glycosuria, (2) which is largely unrelated to diet, (3) a normal blood sugar, (4) freedom from diabetic symptoms, (5) a duration extending over a period of years.

Unclassified Diabetics—Unclassified diabetics in

my classification include all those cases of glycosuria not easily caught in the preceding nets, but especially those cases not previously classified, which are associated with organic disease, for example, of the gall bladder, thyroid, kidney, cancer of the pancreas and often pregnancy, though these latter cases appear to be of varied type and therefore one must not be content to consider them lightly but endeavor to determine whether their glycosuria is that of true diabetes, potential diabetes, renal glycosuria, or merely unclassified. One is struck by the increase of the unclassified group in successive thousands. Thus in the first thousand there were 81, in the second 119 cases, but in the last and most recent thousand where time has not had a chance to show its hand the number is 131. These 562 unclassified cases make a very important group for study. They are a dangerous group. One never rests easy with an unclassified diabetic. Such a diagnosis worries the doctor, annoys the patient and exasperates insurance agents.

Treatment—In the treatment of diabetes today I still adhere to each of the ten clauses of my diabetic creed, but with certain modifications and this preamble: Insulin not only allows but demands that the diabetic of today should never be contented with tolerable health, but should have good health. Perhaps I may be permitted to state the creed in abridged form:

I believe (1) that diabetes mellitus should be considered so probable in any person who has 0.1 per cent or more of sugar in the urine that he should be watched for life.

2. That normal weight, or less, should be insisted upon in each diabetic, suspected diabetic, or relative of a diabetic. (Therapeutic loss of weight should invariably be gradual.)

3. That mildness of the diabetes should be assumed and the patient treated accordingly until the contrary is proved. Hence, the nearer the proportions of carbohydrate, protein, and fat in the diabetic diet conform to those of the normal diet always avoiding glycosuria, the better it is for the patient.

4. That reversal of the diet, namely, high fat and low carbohydrate, assumes the contrary, severity of the diabetes, and is dangerous both in principle and in practice and unless accompanied by a minimum protein intake, frequently ends in coma.

5. That undernutrition (a) prevents diabetes and (b) is the foundation stone of diabetic treatment. If hunger can be avoided a smaller number of patients will yield to temptation, break treatment, and in consequence die of coma.

6. That extreme inanition with loss of body protein is not worth while simply to render the blood sugar normal.

7. That acidosis, the chief cause of death in diabetes, is more easily prevented in ninety-nine cases than treated in one, and therefore diabetics when ill from any cause should (1) go to bed, (2) keep warm, (3) take a glass of hot water, tea, broth, orange juice, or oatmeal water-gruel every hour, (4) empty the bowels with an enema, (5) call a doctor who after a careful examination, if he finds acidosis the dominant factor, will give insulin and caffeine,

may wash out the stomach, and inject a subcutaneous solution of salt.

That gangrene, the other diabetic enemy, should be avoided by extreme cleanliness, care and exercise of the feet by all diabetics over 50 years of age.

8. That the immediate aim of practice should be to simplify treatment and to encourage physicians in their own communities to develop homes and boarding houses, clinics, or departments in hospitals to which they may take or refer their patients for a diabetic education.

9. That any patient with a tolerance of less than 100 grams of carbohydrate should (a) test his own urine for sugar, (b) keep sugar-free, and (c) take home food scales and use them until he can keep sugar-free without them, and eventually in the course of years raise his tolerance to this level with or without insulin.

10. That firm persistence in a strict diabetic diet (a) finds ample justification in the many patients kept alive by it to profit by insulin with its assurance of gain in weight, strength, and mental vigor; and (b) is essential to safety and success in the use of insulin. Insulin utilizes rather than replaces the advances in diabetic treatment hitherto achieved.

Inauguration of Treatment—The inauguration of treatment of a diabetic is a critical procedure. The doctor must never forget that the patient comes to him alive and whatever he does should give help and not cause harm. Two weeks have not passed since I was consulted about a patient who went into coma with the inauguration of treatment because of sudden restriction and alteration of diet.

Acidosis is practically the only danger which arises in the beginning of treatment. Every physician should have ingrained in him these three principles underlying diabetic coma: (1) Overeating tends to bring on coma. (2) It is immaterial whether the patient overeats food or whether he overeats himself. He does the latter when his metabolism is increased, as, for example, when he burns up with fever or has hyperthyroidism. (3) Coma comes when the carbohydrate burned in the body is insufficient to oxidize completely the protein and fat which are simultaneously metabolized. Consequently in the inauguration of treatment of a diabetic don't overfeed him. Protect him with food and protect him by rest against his own increased metabolism. Further, remember that temporarily it is safe to give a small quantity of protein and even less fat, because he can supply these from his own diabetic store as required. On the other hand, allow a moderate amount of carbohydrate which by its oxidation will burn the fat and protein too. No patient who is sugar-free and is taking 1 gram of protein per kilogram body weight will show acid, unless more than 3 grams of fat are oxidized for 1 gram of carbohydrate. If the patient on this diet is not sugar-free the protein should be lowered to two-thirds of a gram, and then it will be safe to give 4 and even 5 grams of fat for each gram of carbohydrate metabolized. This practical rule I have based on the original work of Woodyatt, Schaffer, Wilder and others.

If a diabetic showing large quantities of sugar is suddenly fasted he may go into coma, because his body store of carbohydrate in the form of glycogen

is so slight that it will not offset the protein and fat of his own body which he consumes. Fortunately he seldom goes into coma, simply because his diabetes is so mild that he becomes promptly sugar-free and does not use up his carbohydrate store.

Insulin or no insulin, inaugurate the treatment of diabetes gradually. There is no need for haste. The patient should live for years. The interval between the beginning of treatment and the hour of becoming sugar-free it is true can be shortened with insulin as much as one likes, but only when the patient is watched hour by hour.

If the patient can go to a hospital where he shares the *esprit de corps* of a group of diabetics he is fortunate. There are rare nurses who can inaugurate treatment successfully in the home, but unfortunately there are few of them and the cost is generally prohibitive.

Education of the diabetic begins his first day and should be of the kindergarten order. Don't overwhelm him with knowledge. Teach him the simplest things. He will learn enough as time goes on. However, during the first few days of treatment he must learn the danger of acidosis and how he can avoid it.

It was hard for Mary M. to stand up before the diabetic class and say the reason she went into diabetic coma was because she ate a banana royal and hot dogs, but the remembrance of that fact undoubtedly is partly responsible for our small number of deaths from coma last year. Again this year Mary went into coma and before she could recover from the same the patients in her ward volunteered the reason why. They knew because they saw, when her stomach was washed out, there were peanuts in the contents. There was no doubt in Mary's mind or in the patients' minds why acidosis came on. She is a good girl, but she eats too much, has become too fat, and some day even insulin may not overcome her indiscretions.

Gangrene—Infections of the feet and gangrene are among the saddest complications of the diabetic. If the patient is 50 years old he must realize that gangrene is a possibility. Not uncommonly I send a diabetic to the hospital even though the case is mild, not because of the trifling amount of sugar in the urine, but because I believe the education of the patient in the care of his feet may prevent a catastrophe. When I left the Deaconess Hospital a few days ago there were on my service in the hospital five patients with amputations of a leg and four with amputations of a toe. I consider the example which these patients presented to the others in the group of more value than words. This month represents the beginning of the establishment of a special department for the care of the feet of our diabetic patients after discharge. One might christen it a beauty parlor for diabetic feet. It is not our intention to open a chiropody department for diabetics generally, but we are making available for all our old patients a department to which they can return for the care of their feet. Already we have a dental department, but I suspect this new department for the feet will prove to be more life-saving in character. Particularly have we been led to this because many poor patients in the past have spent,

either of their own or of our funds, large sums of money on account of gangrene or infections of their feet. After discharge from the hospital slight infections have reoccurred and a re-entry has been necessary. Now we are arranging this so-called beauty parlor for the feet so that these patients can regularly report to us for foot inspection. In many patients the state of the diabetes is inconsequential when compared with the state of the feet.

Insulin—Insulin goes hand in hand with diet in the treatment of diabetes. Ordinarily I begin both simultaneously and gradually accustom the patient to both. It is desirable for most all diabetics to take insulin even though a considerable percentage can give it up after a few days or weeks. Insulin is the one drug that they ought to know about, and the sooner they become acquainted with it the better. It saves their time, saves their money, saves their life, and insulin is the one means we have today at our disposal which makes the health of the diabetic not only tolerable, but good. If he is able to give up insulin so much the better, because he tells another diabetic about it and this is encouraging news. If he understands about insulin he will know that it is likely to be necessary for him to employ it in the presence of an infection, whether general like pneumonia or local like a carbuncle. It is his staff which always must be ready when his progress becomes difficult. This evening it is out of place for me to discuss in detail indications for insulin, its dosage, dangers, or methods of application, because these will be considered in a Stanley Black lecture in Pasadena.

Fractures of Shaft of Femur—W. K. West, Oklahoma City (*Journal A. M. A.*), gives the results of treatment in ten cases of fracture of the shaft of the femur in which adhesive traction in connection with a plaster spica was used. This is a modification of several methods. Immediately after the first roentgenogram has been taken, the patient is removed to the plaster room and placed on the traction table. The legs are pulled out to equal lengths. Adhesive strapping is applied to the leg in exactly the same manner as when the Thomas splint is used. The stockinet is then pulled up over the leg and the body. Sheet wadding is applied in the usual manner rather lightly. In addition, the back, ribs and pelvis are well padded with one-eighth inch harness felt. A spica is applied from nipple line to ankle. In small children, the cast is carried to the knee on the opposite leg. It is important that the margin of the cast around the lower back and inner side of the thigh will be well padded and the stockinet that turned back, giving a soft edge. The foot of the bed is elevated eight inches and a Balkan frame is placed over it. This frame is similar to the U. S. army standard. The top half of plaster is cut away from three inches above the knee to the end of the cast. There are two weights used, one suspending the leg in the plaster about six inches off the bed. This rope is carried through two pulleys overhead and one at the foot, so that the weight hangs off the bed below. The other pulley is attached to a cross piece about the level of the main axis of the leg after it has been properly suspended. The Sinclair skate board is used as the wooden block on the sole of the foot, which transmits the traction from the adhesive to the weight rope. The weights used are about sixteen pounds on the suspension and from twenty to thirty pounds on the traction, depending on the size of the patient. Handholds are attached to the frame directly over the patient's shoulders to help him move about in bed. This method is continued from four to six weeks; then a simple plaster spica, including the foot, is used for protection for four more weeks, and after that a caliper splint is used if it is thought necessary.

SURGICAL TREATMENT OF PROSTATIC ABSCESS

By NATHAN G. HALE*

DISCUSSION by Sidney Olsen, San Francisco; Lewis Michelson, San Francisco; Robert V. Day, Los Angeles.

THE surgical treatment of prostatic abscess is of practical importance because of its fairly frequent occurrence, the proximity of important structures increasing difficulties of intervention, the complications liable to result, and the confusing variety of recommended procedures.

The objects of all the methods employed should be to give free and dependent drainage, to interfere as little as possible with the excretory and sexual functions, to minimize complications, and to shorten convalescence.

Etiology—While gonorrhea is the most common cause of prostatic abscess, the primary infection does not necessarily have to be venereal. In this series of twenty-three cases six were of nonvenereal origin. One followed pneumonia, one during the treatment of a fractured femur, one followed the passing of a sound years after a gonorrheal infection, in one case the abscess was of metastatic origin, the focus being a series of boils, two followed influenza. The latter two may have been primary from an undiscovered cause. The general sepsis simulating influenza.

Pathology—Abscess of the prostate may be single or multiple, but more often multiple and involving more than one lobe. The position of the abscess, in relation to the urethra, varies. The extent of destruction is not the same in each lobe. The purulent process usually starts in the tubules and invades the surrounding stroma, destroying both tubules and stroma, forming a union of multiple abscesses and necrosis of the surrounding tissue. Those cases of acute prostatitis studied by A. C. Stokes show the follicles filled with a mucopurulent mass with infiltration of the interstitial tissue. The epithelium of the glands is infiltrated with leukocytes.

The ducts which carry the secretion become closed, the secretion and infection is retained, these minute follicles coalesce resulting in the destruction of prostatic tissue and abscess formation. If most

abscesses are multiple it is unreasonable to expect the advocated procedure of needling and aspirating either by way of the urethra, perineum or rectum to give adequate drainage, and it is not unreasonable to expect a recurrence of an abscess following this method of evacuation.

Diagnosis—The diagnosis depends upon history, size of the abscess and symptoms produced. Palpation per rectum is most valuable. Symptoms of acute posterior urethritis and beginning prostatic abscess are similar. Palpation per rectum differentiates. Only in advance cases is fluctuation noted; this is due to the character of the glandular structure and its firm enveloping fascias. The white count is an aid, but too much importance should not be attached to it. In the gonorrheal cases there is a marked increase in small lymphocytes with a moderate leukocytosis. The temperature usually is moderately elevated.

A marked rigor is seldom experienced, but chilly sensations are common. Difficulty in urinating, with partial or complete retention, is frequently noted. A sensation of weight in the perineum, and pain on sitting, is all but universally present. Frequency is also a constant symptom.

Operation—The urethra and bladder are irrigated with an antiseptic solution. The patient is placed in the exaggerated lithotomy position, as for a perineal prostatectomy. A sound is introduced to the membranous urethra. An inverted "U" incision is made as in a perineal prostatectomy. The rectourethralis muscle is divided, the seminal vesical retractor of "Young" is inserted. The membranous urethra is approached but not incised. By careful dissection the entire posterior prostatic capsule is exposed. The most apparent abscess cavity is incised and thoroughly drained. A 10 F catheter is sutured

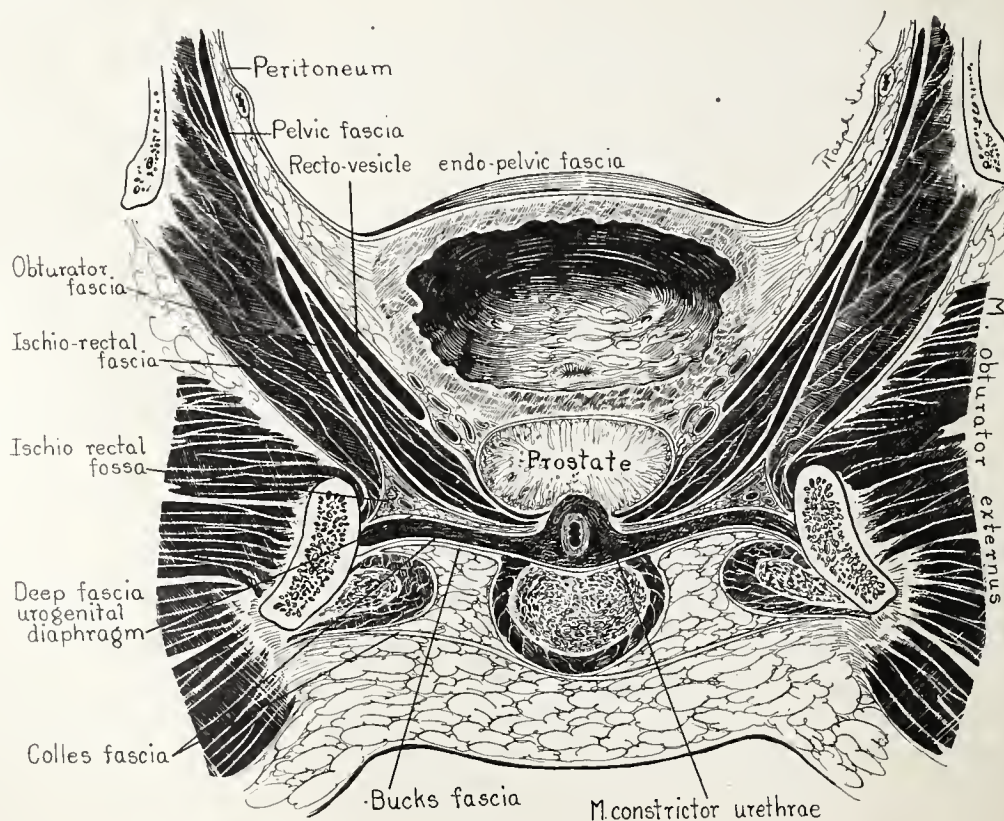


Figure 1

* Nathan G. Hale (400 Capital National Bank Building, Sacramento). M.D. University Southern California, 1914. Graduate study: Sacramento County Hospital, 1914-15; New York Clinics, 1915; house staff Brady Urological Hospital, 1916-17. Previous honors: Division urologist Eighty-seventh Division, 1918; visiting urologist Sacramento County Hospital. Scientific organizations: F. A. C. S., Sacramento Medical Society, C. M. A., A. M. A. Practice limited to Urology since 1915.

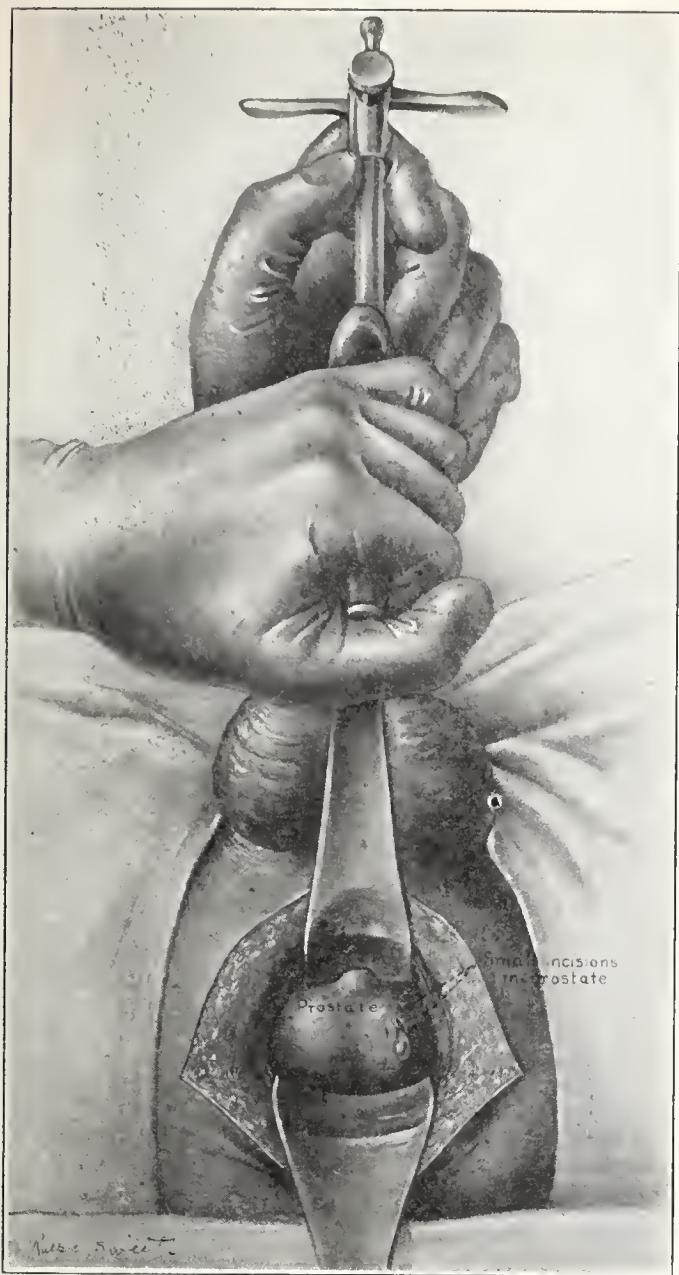


Figure 2

into this cavity for the formation of a sinus tract and instillation of an antiseptic solution.

Multiple punctures with a sharp-pointed bistoury are made in the posterior surface, keeping away from the midline. Pus often seeps from many of these stabs, although not in direct communication with the larger abscess cavity. The retractor is removed. The separated levator ani muscles are sutured in front of the rectum. The skin approximated with a subcuticular suture. No retention catheter is used.

Conclusion—1. Prostatic abscesses are frequently sequelae of nongonorrheal infections.

2. Early diagnosis and rational surgical treatment results in less destruction of prostatic tissue and shorter convalescence than palliative measures.

3. Direct vision and dependent drainage of all the abscess cavities is a satisfactory surgical procedure.

4. The best results should be expected when there is the least interference with the normal functions of the bladder, urethra, generative structures, and rectum.

5. Following convalescence, the resulting prosta-

titis should be treated as any case of chronic prostatitis.

6. Endoscopic examination of six patients operated on by this method showed no distortion of the posterior urethra.

Summary of Results—Twenty-three patients with prostatic abscess were operated on. Their ages varied from 52 to 18. The cause of prostatic abscess was found to be: nongonorrheal, eight; gonorrheal, fifteen. Of the nongonorrheal two were due to trauma, one pneumonia, three influenza, one following a fractured femur with trauma of perineum, and one furunculosis. The history of prostatic abscess varied from a few days to several months before surgical drainage was instituted.

The method of complete perineal exposure showed that the average number of hospital days were fifteen, and the average number of hospital days of other recommended methods were seventeen. Epididymitis complicated the complete perineal exposure in 22 per cent. Other recommended methods showed the complication of epididymitis in 32 per cent.

Epididymitis was the most frequent postoperative complication. One patient developed a tender vas deferens without an epididymitis. A sinus persisted

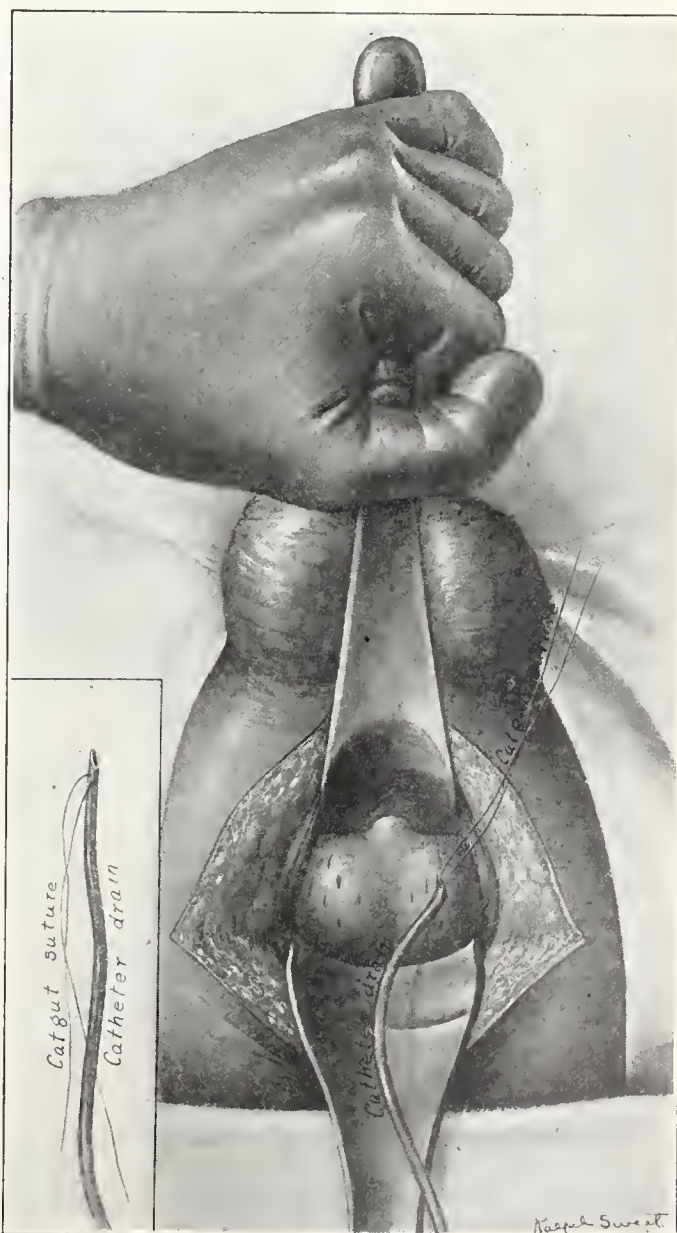


Figure 3

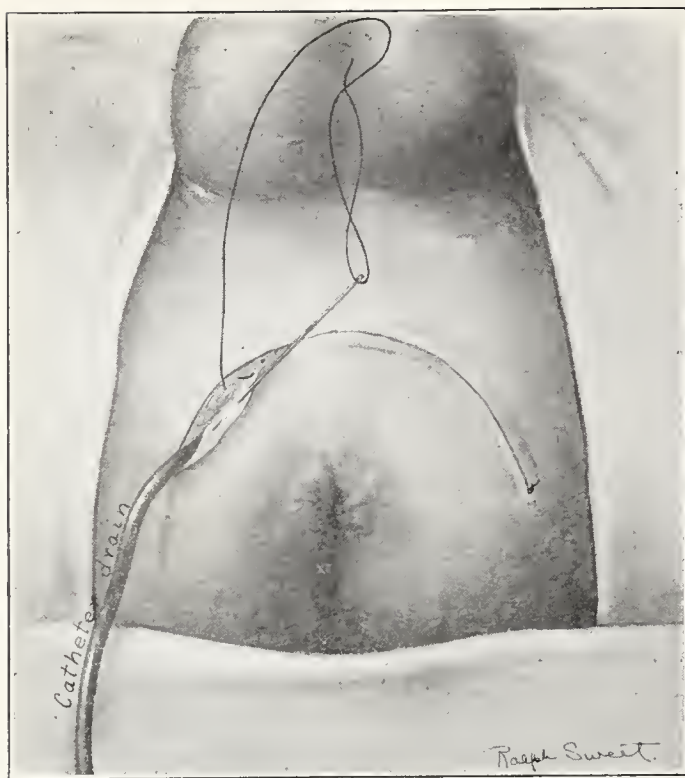


Figure 4

two months after a rectal stab wound. One—a lateral incision—on the sixth postoperative day had a secondary hemorrhage, which was controlled by pressure. The massaged secretion showed an average in the complete perineal exposure of about 20 per cent pus, which persisted over an average length of time of three months, while the prostatic secretion following other recommended methods contained approximately 40 per cent pus and resisted treatment about one month to six weeks longer.

Motile spermatozoa were found to be present in 93 per cent of those following the complete exposure and in 79 per cent following other methods. The sexual functions were normal in every case except one, and that patient stated there was a decrease.

The urine, when a patient has a prostatic abscess, does not necessarily have to be cloudy as in six of the cases the urine was macroscopically clear.

The major portion of those, however, where the urine was found to be clear, were with prostatic abscess caused from a metastatic infection.

The microscopic examination of all the urine showed pus and organisms. The prostatic examination per rectum showed enlargement, and three of the prostates were boggy or fluctuant, while the rest, on palpation, were tense.

The rectal examination was, as a rule, painful. Two patients, however, stated that there was no particular pain on palpation. The size of the stream was in every case diminished. Four of them had complete retention. The force of the stream was poor, and about 80 per cent of the patients had residual urine varying from 30 to 100 cc.

The symptoms varied with the length of history of prostatic abscess. Most had marked pain on urination with fever, chills and malaise. A very important symptom was pain in the perineum on sitting. Previous gonorrheal infections occurred in about

half of the patients and apparently was of no significance as a predisposing cause of prostatic abscess.

DISCUSSION

SIDNEY OLSEN, M. D. (384 Post Street, San Francisco)—When prostatic abscess has been diagnosed, adequate dependent drainage must be sought for cure. This Doctor Hale has shown by his method and results. As the majority of cases are due to gonorrhea, a complicating generalized prostatovesiculitis may simulate abscess. However, the clinical course is different, for the former soon responds to local heat and supportive treatment. With abscess the condition is, as a rule, progressive. Our series is not so large as Hale's, one reason perhaps being that we have always depended on fluctuation as a sign to a great extent. In an abscess localized to one side, unilateral oblique perineal section is often sufficient. By keeping posterior to the transversus perinei muscles and well lateral to the central tendon and rectourethralis muscle, the bugbear—the rectum—is easily avoided and the prostate readily reached. A similar procedure can be made on the opposite side and the whole prostate explored and necessary drainage instituted. This leaves the important central structures unharmed.

A more complete exposure, as Hale has shown, whereby the central tendon and rectourethralis muscles are cut should always be made in more extensive involvement. The whole periprostatic region can be explored and the vesicles likewise drained, if involved, as often occurs.

The incidence of epididymitis as a complication can be kept down to a large extent, I believe, by avoiding any urethral instrumentation at the time of operation or in convalescence. Where the operation is done extra-urethrally no functional disturbance should result. Fistula formation is uncommon, as the larger number of abscesses occur before strictures have formed with their sequellae, so that communication is not made with the urethra at operation. Most cases heal quickly, especially those complicating gonorrhea where the pus is usually sterile. The other types as a rule are more serious as they often accompany a generalized infection, foci elsewhere, or are in older debilitated individuals.

I am glad that Doctor Hale did not mention rupture of the abscess per urethra as a surgical procedure, for it is not one and should be avoided.

LEWIS MICHELSON, M. D. (490 Post Street, San Francisco)—Any method that enables the operator to obtain a better exposure of the diseased organ instead of depending upon his sense of touch, is the more surgical procedure. The method outlined in Doctor Hale's paper assures good exposure and has many advantages over the so-called "stab method." In the first place, an abscess can be located earlier in the course of the disease. Secondly, multiple abscesses are found that would otherwise be missed. Thirdly, drainage can be more intelligently carried out.

The old procedure of opening through the rectum or directly through the skin upon the abscess should be reserved for cases where the surgical facilities are poor, or those which are in extremis. I have used this latter method upon only two patients: one a typhoid who was practically in a dying condition; the other, one who had an abscess pointing in the perineum, which required an incision only about an eighth of an inch deep. A third case, in which an abscess was ruptured in introducing a sound, and drained through the urethra for weeks, had later to be operated upon under complete exposure before it would heal.

The percentage of nongonorrheal cases I have seen is less than 10 per cent of the total. One of these was in a gland which was removed for a different condition.

ROBERT V. DAY, M. D. (Detwiler Building, Los Angeles)—Doctor Hale has certainly covered the ground well in his essay on prostatic abscess. I agree with all he has said except for a slight modification of technique and a little more conservatism.

Formerly I made the Young exposure as he did. For the past few years I have used the lateral incision like Doctor Olsen. It saves the central tendon and is far less

apt to result in nerve section, an important factor. Moreover, it shortens the patient's stay in bed.

As regards their attitude toward the operative treatment of markedly acute purulent prostatitis, one might say there are three schools, viz.: the ultraconservative, the radical, and "the middle of the road."

The ultraconservative practitioner is apt to, and frequently does, allow the process to go on to dangerous extent, resulting in enormous destruction of tissue, wide dissection by the purulent exudate, and often extremely serious metastatic infections. The radical, on the other hand, reasons that even if no definite pocket of pus is found that multiple punctures cause the engorged and inflamed prostate to rapidly resolve, shortens the course of the disease and this particular complication, and leaves the patient finally in a nearer normal condition as regards his prostate. The urologist taking an intermediate stand is reasonably conservative and operates only when he feels there is a definite abscess, small or large, or that the prostate and vesiculitis has small chance of draining and resolving without operation in a reasonable length of time, that the patient's septic condition is serious, or there is definite danger of metastatic infection.

I have in my own practice (as well as observed my friends among the urologists) performed prostatotomy for supposed prostatic abscess without finding gross pus. The patients recovered rapidly, but I fear with almost a total melting down of prostatic tissue.

I do not hesitate to state that I belong to "the middle of the road" class, and the operations I have done for prostatic abscess do not total more than fifteen.

Sometimes I have found that the introduction of a catheter as an emergency for the relief of acute retention or great distention produced by a prostatic abscess, has resulted in establishing satisfactory drainage and an operation avoided. This is especially apt to be true if the catheter is left in overnight or for a day or two. A silk catheter of the bicoodee or Wishard type is comfortable and often brings about adequate drainage of the abscess in the urethra. At other times, in a man of prostatic age, when the pain is not overwhelming, there is a suspicion of prostatic obstruction other than abscess, the introduction of a cystoscope for examination may produce an appreciable tear as the urethra is straightened out by the cystoscope, and sometimes even there is a gush of pus. I wish, however, to be unmistakably understood as condemning the attempt at establishing drainage of these abscesses with a urethral sound as advocated by Stevens of New York.

As to the diagnosis, it is often difficult. Some have excruciating pain, hardness and swelling, but no fever. The blood count is not always reliable. If one waits for fluctuation, however, an irreparable amount of damage is done and patient is subjected to the extreme danger of metastatic infection.

Happy may be that man who, in the midst of the struggle to keep up the ever-increasing pace, to climb each succeeding hill and reach each near or distant goal, is overtaken by some turn of fortune, even if it be illness, which may compel a pause. Look not upon it as a misfortune of necessity, for it may be a blessing in disguise; an opportunity to be seized upon. Now you may read those books you have not had time to turn to and cultivate the friendships the true worth of which you had not realized. Now is the time to dally with the art of correspondence, perhaps to develop an avocation which will stand you in good stead again. Better still you may avail yourself of the opportunity to discover or strengthen a philosophy of living which will make you better in your work, when you take it up again, more unselfish in your dealings with others, better able to evaluate properly the difference between living for the future only and living in the present but for the present and future both.—*Boston M. and S. J.*

According to the "Wall Street Journal," bootlegging is now the fifth largest industry in the United States, has less hazards, a quicker turnover and greater profits than any other industry, and points out the great glories to be obtained from engaging in that business.

LUNG COMPRESSION AND SURGERY OF THE LUNG FOR THE RELIEF OF TUBERCULOSIS

Symposium by

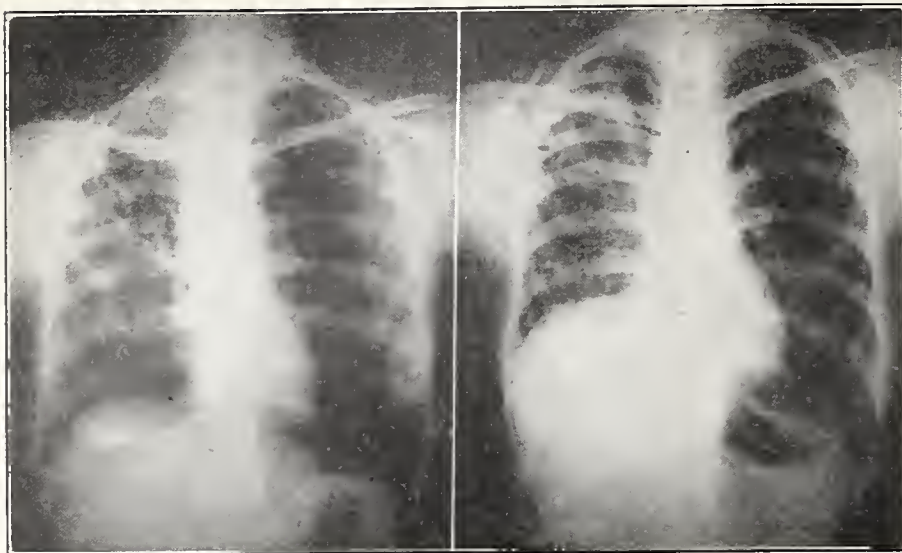
PHILIP KING BROWN * AND LEO ELOESSER

Read at the Nevada Medical Association Meeting, September, 1926

PHILIP KING BROWN—Bacmeister of St. Blasien reported this last spring that, among all patients with clearly demonstrable pulmonary cavities which x-ray examination has shown to be at least the size of a cherry, only 20 per cent were still alive after six years of conservative treatment, including sanatorium treatment.

The last twenty years has witnessed marked advances in the treatment of pulmonary tuberculosis. Compression of the lung by the procedure known as artificial pneumothorax needs no defense, and physicians who have studied their cases thoroughly, using x-ray plates to check the findings while giving pneumothorax, have extended its use even to bilateral cases using a moderate degree of compression on both sides. This treatment is in line of advance of the idea that in rest of the diseased area lies the greatest chance of stopping the progress of the disease and preventing hemorrhage. Rest has been the one form of treatment that has stood the test of time, and the development of the maximum of rest in the diseased area has been one of the big problems in dealing with this disease. Absolute rest of the lungs is not possible, but a minimum of effort is thrown on the lungs by strict confinement of the patient to bed. In patients in whom the diseased process is confined to one side various means have been devised for lessening the work of that side. Sandbags have been placed on the affected side so that air would less easily raise the chest wall in the effort of breathing. Patients are often kept lying on the diseased side, thus limiting greatly the motion on that side, for it has been shown that far less air enters the lung in this restricting position and what does enter goes into the upper side. Finally in this country, and somewhat earlier in Italy, two physicians conceived independently the idea in unilateral cases of introducing air through a hollow needle inserted between the ribs into the cavity surrounding the lung on the diseased side. This air cushion compressed the lung evenly and could be increased at will in small amounts until a point was reached where air no longer entered the compressed side through the normal route by the trachea and bronchi, and all the work of breathing was carried on by the unaffected side. This gave ideal rest, and has resulted in a vast improvement in the number of cases in which the disease is arrested. In due time the air is absorbed and the lung again expands so that the reintroduction of air every few weeks is necessary. There are other and equally important factors influencing heal-

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1a. Mrs. M. Three large cavities on the right side not to be closed by pneumothorax which was tried repeatedly. Small amounts of air being introduced in various places.

1b. The same case after abandoning pneumothorax and performing phrenectomy. Note the high level of the right diaphragm and the diminished cavities.

ing that are brought into play by this procedure. Chief among them are the lessening of cough, expectoration and fever due to the approximation of surfaces of cavities.

The development of rest of the diseased lung in the treatment of pulmonary tuberculosis has been making strides for the last two decades, stimulated or guided by the increasing facilities for studying lung conditions during life. The x-ray plates, particularly stereoscopic, screen examination and a record of vital capacity, gives a check on what extent of rest is needed and what is safe.

It is no longer as necessary to consider the refinements of climatic influence as it is to consider the available type of medical and surgical guidance, and one hears less and less of tuberculin and climate, and more and more of physical condition.

The purely nonsurgical mechanical methods of producing relative rest are very simple:

1. Sandbags laid on the chest to limit motion.
2. A harness belt of some sort which claims to limit motion on one side.
3. Postural rest, lying twenty-three and one-half hours a day on the side in which the limit of motion is sought.

Of the sandbag method I cannot speak from experience, for, although advocated by as able a clinician as Henry Sewall, it has never appealed to me as possessing elements of comfort conducive to repose. The chest belt I have tried and studied under spirometer control without being able to convince myself that it did much good. Even pleurisy pain is not relieved by it as effectively as by the old-fashioned broad adhesive strap applied all around the waist. A belt so applied, however, has been of the greatest benefit in lessening the excursion of the diaphragm, and seems of definite benefit, especially in basal cases. Postural rest, so strongly advocated by Gerald, Webb, and Forster, almost to the exclusion of pneumothorax in unilateral cases, deserves maximum consideration among the mechanical nonsurgical methods of inducing one-sided rest. The

very fact that its strongest advocates use it "almost to the exclusion of artificial pneumothorax" is its chief recommendation. Patients are encouraged to lie on the affected, or chiefly affected side practically the entire twenty-four hours, turning over twice a day for fifteen to thirty minutes to facilitate the drainage of secretions, especially from cavities.

This brings me to a consideration in retrospect of what the x-ray has done to guide the treatment of pulmonary tuberculosis, as well as abscess. Within a few months there has appeared in a German therapeutic journal an article by Bacmeister of St. Blasien, Switzerland, based on his own experience and compilation from literature in which this statement is made: "Among all patients with clearly

demonstrable pulmonary cavities, which x-ray examination has shown to be at least the size of a cherry, only 20 per cent were still alive after six years of conservative treatment (sanatorium treatment included). This shows that larger cavities which do not show definite signs of shrinking within the first two or three months of internal therapy and treatment in a sanatorium, lead to death, unless the doctor or the body itself by the formation of exudate interferes actively."

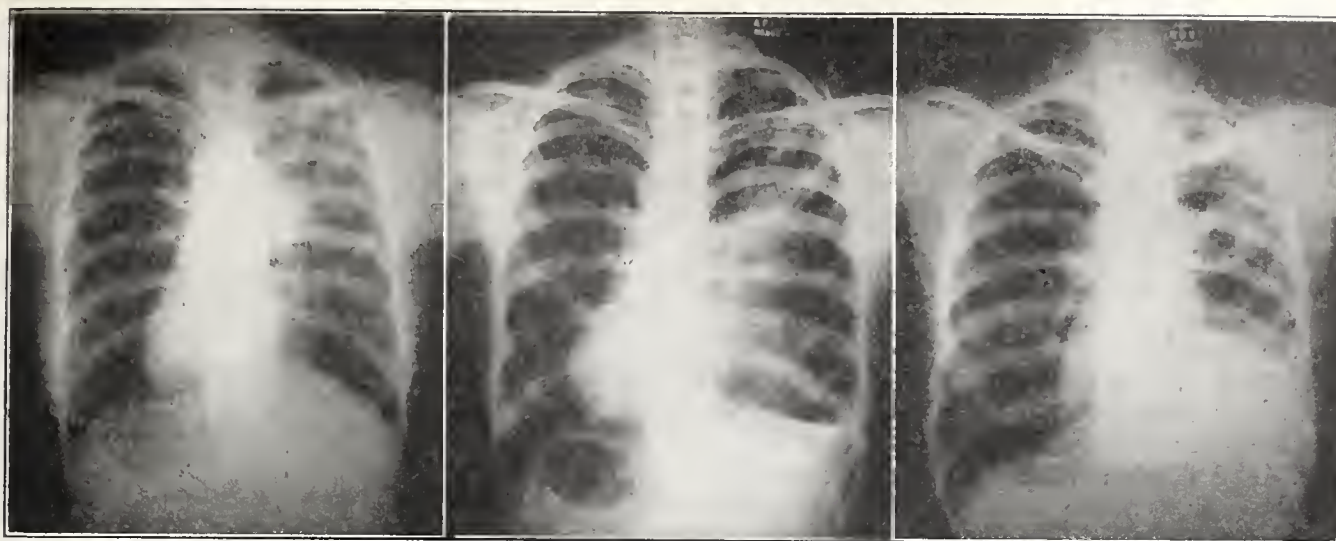
What are the means of active interference?

1. Phrenectomy.
2. Artificial pneumothorax.
3. Thoracoplasty.
4. Thoracotomy.

Suffice it to say that if a patient with a largely unilateral process has shown no definite encouraging improvement in clinical signs and x-ray outlines under the most exacting rest in bed within two months a consideration of surgical interference is in order, and in all cases where cavities of any size are demonstrated by x-ray plates, active surgical interference should be kept in mind from the start. If the first of the three procedures be justified, and sufficient benefit to be encouraging should not follow, the next step is in order by the same reasoning that justified the first move.

Leo Eloesser—Surgical Treatment of Pulmonary Tuberculosis—The surgical treatment of pulmonary tuberculosis has aroused so much interest in the last few years that I am impelled to preface a recital of my experience with an admonition rather than with an outburst of enthusiasm. For the course of tuberculosis is notoriously difficult to foretell, and the necessity for operation correspondingly difficult to judge of. Hasty judgment is impossible, and every patient should be carefully and patiently observed before deciding whether or not to operate.

Our operations aim to set the diseased lung at rest, and to cause open suppurations, cavities to close. In which patients nature will accomplish this, which patients should be operated on, and by what



2a. Mrs. S. Extensive right-sided tuberculosis with cavity formation.

2b. Ineffectual closure of the upper lobe cavities by pneumothorax, due to extensive adhesions. Marked positive pressure used.

2c. Striking improvement following phrenectomy with continuance of the pressure from above by pneumothorax.

methods, are the questions that observation must solve. The question is sometimes simple, sometimes difficult. The patients in whom it is easy to answer are the ideal ones for operation, nature herself points the way.

There are several things we must make clear to ourselves before considering operation. We must recognize that while we can collapse a lung or close a cavity by compressing it we cannot raise the patient's power of resistance to the disease by any surgical measures. And we have long learnt to recognize that the severity of the disease is measured not by the amount of lung involved, but by the systemic reaction. We know that there are patients with a small patch at one apex who react with high fever, rapid pulse, weakness, sweats and all the signs of a severe toxemia, who are irrevocably doomed; and that there are others who have lived to an overripe old age with both lungs studded with fibrous tubercles, coughing, spitting, but carrying their bacilli about with them with no more systemic reaction than they would have from a tapeworm. Very sick patients then, with not much to show for their sickness in their lungs, those with a rapid decline, high fever, sweats and emaciation, make poor subjects for operation. Surgery cannot stop their toxemia.

We must furthermore make it clear that we cannot put both lungs at rest at the same time, and that if we put one lung at rest the other must be sufficiently sound to bear with impunity the increased respiratory burden we thrust upon it. We must not consider operation, therefore, when both lungs are badly affected.

After excluding these three groups, those with mild tuberculosis who recover with medical care, those with rapidly advancing lesions, and a severe toxemia—the old “galloping consumption”—and those who have both lungs badly affected, there remains a small, but still a large enough group in whom operation may be considered.

We said that nature often pointed the way. Her first pointer is in the duration of the disease. Phthisics who have lived on, stubbornly resisting

every effort at cure, for three, five, seven years and more, give by their stubbornness *prima facie* evidence of their resistance. Some anatomical reason underlies this resistance to cure, usually a cavity so large that nature cannot close it.

The second pointer lies in a shrunken chest. Nature has blazed the way which we are to follow; for our surgical efforts aim to compress the chest in various ways. If the natural course of the disease has been toward shrinkage and fibrosis, it is not unlikely we can further the shrinkage by operative measures. Patients then with mainly one-sided lesions, with chests one side of which is shrunken and stands still on respiration, who have for years stubbornly resisted treatment by other means, these are the ones in whom surgical operation is to be thought of.

Compressing a lung by means of artificial pneumothorax should be tried first. Often it will not succeed, especially in the much shrunken chest; the oblitative adhesive pleurisy that has caused the shrinkage makes it impossible to introduce air into the pleural cavity.

Sometimes we will be able to get air into a part of the chest, usually the unaffected part, but the cavernous lung will remain uncompressed. In these patients we can supplement the pneumothorax with a partial thoracoplasty.

Not infrequently one large cavity remains uncollapsed in the middle of an almost complete pneumothorax, being held distended by various strands and bands of pleural adhesions. We can open these chests, tie off the adhesions, sever them with a galvanocautery, close the chest and keep on with the pneumothorax, more or less effectually—in other words, do an intrapleural pneumolysis. Or we can introduce an endoscope (athoracoscope) into the chest through a small incision and cauterize the adhesions (Jacobaeus' method).

If the pneumothorax is successful and complete, however, we can collapse a lung much more completely and easily by it than by any major surgical procedure.

If pneumothorax is impossible we have still other

ways in which to influence the walls that keep the lung distended. These walls are three—the thorax, the largest and most rigid one; the diaphragm, the smallest, but the most movable; and the mediastinum.

The mediastinum we cannot influence surgically, indeed we need not, for it is so yielding that it will of itself follow the lung.

We can influence the diaphragm by robbing it of its nerve supply, paralyzing it, and causing it to rise into the chest by pressure of the abdominal viscera underneath. We can destroy the phrenic nerve, or nerves—for there is often a double one—by exposing them just above the clavicle and slowly avulsing them. This diaphragmatic palsy does not much reduce the capacity of the chest, perhaps not more than one-fourth to one-fifth, yet the operation is easy, not productive of shock, and it is useful, especially when we are in doubt whether the better lung is able to bear an added load. If the better lung reacts badly after avulsion of the phrenic nerve, or if dyspnea increases we had better not go on. No dyspnea and no progression of tuberculosis in the better lung are signs that we may more safely proceed to further collapse.

The rib-cage is the major factor in keeping the lung distended; its movements make up three-fourths or four-fifths of respiration; the rigidity is what holds the lung from collapse.

By resection of all or a great part of the ribs we can materially reduce the capacity of the thorax. It is not necessary to resect a long piece of each rib. If they are resected well toward the spine a small resection will suffice. In order to obtain a good collapse, however, we must resect the upper ribs, especially the first, for one rib hangs from the other like the shutters of a Venetian blind, and when the first is resected the whole chest drops down from the top.

There has been considerable discussion where to begin with the resection, above or below. I shall not go into these technical details.

In extraction of the phrenic nerves, in multiple rib resection, in pneumothorax, and in the combination of two or all three of these procedures lie the means we have of artificially collapsing the lung and setting it at rest.

The results of operation are roughly: one-third of the patients are cured; one-third are improved; one-third die sooner or later. The mortality of the operation is low; for phrenectomy practically nil; for thoracoplasty not over 10 per cent.

The results are not so bad when one considers that only patients that have stubbornly resisted other forms of treatment have been operated upon. The one-third of cures may be reckoned as clear gain; the one-third of dead as inevitable sacrifices to the disease.

Our statistics may improve in time as we learn better to judge of the course of the disease and to recognize at the outset forms that are hopeless under medical treatment but not so after operation.

My own statistics are, as follows:

From April, 1921, there were done for pulmonary tuberculosis: seventy-seven operations on sixty-two patients. Thirty-two patients had thoracoplas-

ties—one died of the immediate effects twenty-four hours after operation; one ten days later of an acute caseous pneumonia; three others died of their disease; one six months, one two years, one four years after operation. I cannot yet say how many of the remaining twenty-seven are cured—probably ten of them. By cured I mean free of all symptoms and able to work.

The phrenic nerve was avulsed twenty-five times: there was no operative mortality; five of these patients died later of the course of their disease; seven of the remaining ones had thoracoplasties done—only one of the twenty-five was cured or strikingly benefited by the phrenic operation alone.

There were five intrapleural pneumolyses—three of them are cured; there were no deaths.

So that the operations are not dangerous. The one death of the seventy-seven operations was avoidable. I did more at one stage than the patient should have been called upon to stand.

And while some of the patients under observation will doubtless still succumb to their disease, others whom we look upon as doubtful may in time recover.

Diagnosis of Renal Tuberculosis—In 3766 other cases of pulmonary tuberculosis reported by various observers, kidney involvement was found macroscopically at necropsy in 588, or a little more than 15.5 per cent. Microscopic examination in a similar, although smaller, series of cases revealed infection of the kidney in more than twice this number. William E. Stevens, San Francisco (*Journal A. M. A.*), says that unquestionably, involvement of the kidneys occurs more frequently in the presence of active pulmonary tuberculosis than is generally appreciated. The presence of tubercle bacilli in smears of the bladder or kidney urine, or a positive guinea-pig test does not necessarily indicate renal involvement, as these organisms may occasionally be excreted by a normal kidney. Tuberculosis of the epididymis, prostate or seminal vesicles, primary so far as the genitourinary tract is concerned, is also often responsible for tubercle bacilli in the bladder urine. The very frequent association of genital and renal tuberculosis in the male, however, should be remembered. Tuberculosis of the female genitalia, on the other hand, is seldom associated with tuberculosis of the kidneys. Guinea-pig inoculation is not by any means infallible. In some cases the guinea-pig tests have been negative but the smears positive. Tubercle bacilli were demonstrated at some time in 83 per cent of the specimens of urine from kidneys that Stevens found to be tuberculous at operation. The subcutaneous injections of tuberculin is occasionally of diagnostic value, but only from a positive standpoint. A rise in temperature, accompanied by a focal reaction such as increased pain in the kidney region, more frequent urination and more pus and tubercle bacilli in the urine, is significant. Information obtained by this procedure is also often of value when there is a question as to involvement of the opposite kidney. The roentgenographic observations in renal tuberculosis are positive in a much larger number of cases than is generally appreciated, and this procedure should be more frequently employed in the diagnosis of renal tuberculosis. Tuberculosis of the kidneys occurs more frequently in children than is indicated by most of the statistics appearing in the literature, and modern urologic diagnostic procedures, such as cystoscopy, ureteral catheterization, functional kidney tests and pyeloureterography, are frequently indicated in infants and children as well as in adults. Renal tuberculosis is uncommon as a complication of pregnancy, although it is probably often overlooked.

A movement is on in Pennsylvania to have the legislature adopt a state flower. Some variety of grafted plum should be appropriate in that commonwealth.—*Louisville Courier-Journal*.

POISONOUS SPIDER BITES, WITH ESPECIAL REFERENCE TO THE *LATRODECTUS MACTANS*

A CLINICAL AND HISTORICAL STUDY OF A WIDESPREAD BUT LITTLE KNOWN CONDITION

By EMIL BOGEN AND PHOEBUS BERMAN *
(From the Los Angeles General Hospital)

THE EDITOR: *The importance of arachnidism caused by the bite of *Latrodectus mactans* (Black Widow spider) is usefully re-emphasized by Bogen and Berman in this discussion.*

The wide prevalence of this dangerous spider in certain sections of California is not generally recognized. Although the bite is rarely fatal, it does produce serious acute illness with distressing symptoms which may easily lead the unwary physician to make a wrong diagnosis and even subject the patient to needless surgical interference.

A CLINICAL complex closely simulating an acute abdominal disease may be produced in man by the bite of the *Latrodectus mactans*, a poisonous spider of North America commonly known as the Black Widow, shoe button, or hourglass spider. Fifteen patients suffering with this condition have been treated at the Los Angeles General Hospital in recent years. The diagnosis was not made at the time of admission in the first five instances, perhaps because we were not then familiar with the disease, for there has been no difficulty in recognizing the eight cases which were seen during the last year. A brief summary of the case reports may help to visualize the condition encountered in these patients.

CASE 1—A Mexican laborer, age 29, while sitting in an outdoor toilet at Palo Verdes was bitten on the penis by a spider. He had severe pain and muscle spasms, which lasted about two days.

CASE 2—A Mexican laborer, age 25, was admitted, doubled up in acute pain in the abdomen, legs and arms, with a tentative diagnosis of acute appendicitis. The abdomen was rigid but not tender, and the temperature was 101°. He stated that he had been bitten on the side of the abdomen by a black spider, and in two days was discharged as well.

CASE 3—A Hungarian laborer, age 37, while sitting in an outdoor toilet in Los Angeles was bitten on the penis by a black spider. The severe pains which followed spread up the inguinal region on each side into the abdomen and thighs. On admission he was writhing in pain, cyanotic, the abdomen was rigid although not tender, and the knee jerks were hyperactive. He vomited several times and had urinary retention requiring catheterization. The systolic blood pressure was 170, the white blood count 13,750. Although the most severe pains had diminished within twenty-four hours, it was five days before he was able to leave the hospital.

CASE 4—An American acetylene welder, age 42, was admitted with a tentative diagnosis of acute appendicitis. A severe pain, starting in the scrotum and lower right

quadrant, had spread over the entire abdomen, which was of a board-like rigidity, but showed no areas of tenderness. Profuse perspiration, respiratory distress, urinary retention requiring catheterization, obstinate constipation, a fever of 100°, and a leukocytosis of 21,800 with a trace of albumin in the urine complicated the picture, and the suggested diagnoses varied from lobar pneumonia to food poisoning, ruptured gastric ulcer or acute appendicitis. However, the symptoms soon subsided, and the patient remembered that five minutes before the onset of the pain he had been bitten on the end of the penis while in an outdoor privy. Several days later he was discharged completely recovered.

CASE 5—An American watchman, age 51, was bitten on the penis by a spider while in an outdoor toilet in Baldwin Park. Severe pain was felt in the lower abdomen, extending into the thighs and accompanied by vomiting, hiccoughing, and marked nervousness. The blood pressure rose to 165 systolic, the stool contained blood, the urine a trace of albumin, and the temperature went up to 100. All symptoms subsided, and the patient was discharged three days later.

CASE 6—An American cowboy, age 22, was bitten between the shoulders by a black spider. Pain arose in the back and spread to the chest, abdomen and legs, and he became dizzy, cyanotic, short of breath, and vomited repeatedly, remaining in the hospital for nearly a week.

CASE 7—A Mexican laborer, age 25, while sitting in an outdoor toilet was bitten on the penis by a spider. He complained of severe abdominal pain and his abdomen felt very rigid, but was not tender. The white blood cell count was 13,600. He perspired freely and by the next day was able to leave the hospital.

CASE 8—A Mexican laborer, age 18, was bitten on the penis by a black spider in an outdoor toilet. Severe pain radiated down his legs and up over the abdomen, and speech and even breathing became difficult. Other symptoms included profuse perspiration, vomiting, cyanosis, constipation, and a temperature of 100. The abdomen became very rigid but not tender, reflexes hyperactive, systolic blood pressure 152, white blood cells 18,700. The patient remained in the hospital for nearly a week.

CASE 9—A Mexican laborer, age 38, while sitting in an outdoor toilet in Belvedere was bitten on the penis by a small black spider. When seen an hour later he was doubled up with pain in the abdomen, chest, legs, arms, and back of the head. Nausea, vomiting, temperature 100, profuse perspiration and intense thirst followed. The abdomen was markedly rigid throughout but not tender, the knee jerks were hyperactive, and the scrotum was contracted and penis erectile. The blood pressure was 154 systolic, the white cell count 16,000 with 89 per cent polymorphonuclears, and the urine contained numerous casts. The most acute pain began to subside within twenty-four hours, but the patient remained in the hospital for more than a week.

CASE 10—A negro laborer, age 36, was bitten on the penis while in an outdoor toilet. This was followed by a severe cramping pain in the groins and legs, later spreading to the chest and arms. The abdominal wall was very rigid but not tender, the scrotum contracted, and the body covered with a profuse perspiration. The systolic blood pressure was 150, the white count 12,400, the urine contained a trace of albumin and occasional casts, and the temperature rose to 100. Twelve hours after the bite he was given 40 cc. of whole blood taken from the previous patient, intramuscularly, and within a few hours was feeling greatly relieved, and left the hospital on the third day.

CASE 11—A German painter, age 49, was bitten on the scrotum by a spider in an outdoor toilet in Los Angeles. Pain gradually spread over the groins and back and became very severe in the chest and legs. The abdomen was markedly rigid, the knee jerks hyperactive, and the white blood count was 16,400. The pain diminished within twenty-four hours, and the patient went home the next day.

CASE 12—An American carpenter, age 45, was bitten on the penis by a spider while in an outdoor toilet in Monterey Park. A sharp pain spread from the groins

* Emil Bogen (1100 Mission Road, Los Angeles). M. D. University of Cincinnati. Hospital connections: Los Angeles General Hospital. Publications: "Clinical Test for Liver Function," Journal of Laboratory and Clinical Medicine, 1923; "Pneumonic Plague in Los Angeles," California and Western Medicine, 1925.

Phoebus Berman (1100 Mission Road, Los Angeles). M. D. University of Southern California, 1919. Graduate study: Los Angeles General Hospital; intern, resident physician and instructor of interns last seven years. Hospital connections: Los Angeles General Hospital, assistant superintendent in charge of attending and house staffs, senior instructor of interns. Practice: Work at the Los Angeles General Hospital since 1919.

over the entire body, and was accompanied by chills, nausea, vomiting, fever up to 100, and drenching sweats. The abdomen was rigid and tender, the systolic blood pressure was 150, the white blood cell count 14,600 with 94 per cent polymorphonuclears, and the reflexes were hyperactive. Fourteen hours after the bite, 15 cc. of convalescent serum was injected intramuscularly, and the next morning the patient was feeling much better, but he stayed in the hospital for three days.

CASE 13—An American factory worker, age 16, was bitten on the back by a black spider while at work. Aches and pains in the arms, legs and back, increased until the boy was doubled up in agony, the abdomen became rigid and the body was covered with perspiration. The systolic blood pressure was 150 and the white blood cell count 12,600. Seven hours after the bite he was given an intramuscular injection of 15 cc. of convalescent serum, and soon felt much relieved, leaving the hospital the next morning.

CASE 14—An American laborer, age 65, was bitten on the scrotum by a black spider in an outdoor toilet. Severe pains, especially in the back, were followed by numbness and tingling in the hands and feet and general weakness. He came to the hospital several days later, bringing the spider, a *Latrodectus mactans*, and was treated in the outpatient clinic for a number of days, complaining of marked weakness.

CASE 15—An American boy, age 14 months, was bitten by a black spider while sitting on a wicker stool. He cried out and continued to moan in pain, even after he had been rendered stuporous by heavy doses of chloral and morphin, and developed urinary retention, board-like abdominal rigidity, and edema of the legs. Six hours after the bite he was given an injection of 20 cc. whole blood from a convalescent patient, and soon after dropped to sleep and the next day was practically recovered.

COMMENT

From the records just cited we see that most of our cases of poisoning from spider bites were men who had been bitten on the penis while sitting in an outdoor toilet in and about Los Angeles, after dark, in the late summer or early autumn. Most of the patients had seen the spider, which they described as black and shiny, and several mentioned the red spot on its belly or identified a specimen of *Latrodectus mactans* shown them. In no instance was there any marked swelling or inflammation present at the site of the bite. Severe pain, arising soon after the bite and increasing in intensity for an hour or two, was a constant complaint. It started generally in the neighborhood of the bite, but soon spread, and was localized in the abdomen and legs in nearly all of the patients, but was also felt in the chest, arms, genitals, groins, back, and "all over" in many. The pain, which was described as intense, excruciating, agonizing, severe, throbbing, cramping or aching, and was evidenced by writhing, tossing, doubling up and moaning, persisted for from four to eight hours undiminished and then gradually subsided during the course of the next twenty-four hours, but complete relief was not experienced for a number of days, and often not for a week.

Profuse perspiration, restlessness, nausea and vomiting, constipation, and dyspnoea were prominent symptoms, but vertigo, ataxia, chills, urinary retention, localized edema, and persistent hiccough were also noted. The abdomen was extremely rigid, but tenderness was usually absent, the reflexes were hyperactive, and priapism was noted in one instance.

A mild fever, generally around 100 and in no case going above 101.6, was usually found, but the

daily fluctuation in temperature was increased, and many of the patients showed a subnormal temperature at some time. The pulse was generally slow as compared with the temperature, being below 66 in more than half of the patients at some time, and the respiration, although occasionally accelerated for short periods at first, soon approximated a normal rate. The blood pressure was elevated in every instance, averaging 150 mm. mercury systolic with 87 diastolic on admission, but dropped rapidly on later readings. Leukocytosis was present on admission, averaging 14,800 in the cases examined on the first day in the hospital, the highest count being 21,800, but by the third day the average white blood count was only 10,700, the lowest being 5900. There was generally a relative increase in the polymorphonuclear leukocytes on the date of admission. The red blood count was variable, being above normal in several instances, and the color index was about one. Four of these patients had a positive Wassermann reaction. A trace of albumin and a few hyaline or granular casts were found in the urine in six cases, and blood was reported once.

As Doctor Bolotin observed, it is almost pathognomonic of spider bite for the physician reporting the case to say that he has been unable to find any similar cases reported in medical literature. Intensive search, however, revealed nearly 500 articles reporting cases of spider bites, or studies of spider venoms, in every part of the world. More than 150 instances of systemic poisoning from spider bites have been reported in the United States during the last hundred years, from more than a dozen states, but two-thirds of the cases recorded were in the state of California. Women have been rarely affected, and most of the patients were bitten on the penis while sitting in an outdoor privy in the evening in summer or fall. Local swelling or inflammation was uniformly absent, but acute pain was a constant symptom. This pain appeared soon after the bite, spreading apparently by contiguity over the abdomen, legs, chest, back and "all over," became intense, excruciating and agonizing within an hour or two and remained undiminished for more than six hours, then gradually subsided in the course of a day or two, but was not entirely gone for several days thereafter. It was often accompanied by profuse perspiration, nausea, vomiting, dyspnoea, mental perturbations, constipation, cyanosis, prostration, insomnia, speech difficulties, and acute urinary retention, and paralysis, convulsions, edema, rash, chills, vertigo, cramps, and jaundice have been described. An extreme board-like rigidity of the abdomen was the most striking physical finding, although abdominal tenderness was generally not mentioned, and tremors, twitching, muscle spasms and priapism have been reported.

TREATMENT

The constancy of the symptoms and findings in spider-bite poisoning is rivaled by the diversity of the treatments that have been employed. More than seventy-five remedies have been administered, each with the greatest confidence that this was the best line of treatment. Morphin, opium and laudanum, whisky or brandy, ammonia, atropin, magne-

sium sulphate, hot baths and fomentations, enemas, blood letting, strychnin, camphor and potassium permanganate have been among the most popular treatments, and one patient was operated on under the impression that he had an acute appendicitis. Nearly a dozen patients are reported to have died from the effects of a poisonous spider bite in the United States, but detailed descriptions are available in only a few instances. In these the symptoms seem to have been the usual ones, perhaps a little more severe, and death ensued in from fourteen to thirty-two hours.

The treatment at the Los Angeles General Hospital consisted of (1) sedation, with morphin, codein, bromides, chloral, veronal and hot applications; (2) stimulation, with spirits of ammonia, caffeine and strychnin; and (3) elimination, with magnesium citrate or epsom salts, castor oil, calomel, enemas, catheterization, and gastric lavage. Although we have not yet had a fatality, the large doses of narcotics required to give adequate relief made it desirable to seek some more efficient form of treatment. Convalescent serum was given intramuscularly in the last four severe cases. The results, while not absolutely conclusive, are sufficiently encouraging to warrant the continuation of the use of this treatment, and accordingly a supply of convalescent serum is now kept at the hospital in readiness for this purpose.

Desultory conversation with Californians shows that the condition of spider-bite poisoning is not a rare one, and the fact that eight patients were admitted to our hospital during the past year from this condition testified to the severity of the symptoms that may develop. Perhaps the usual location of the bite may disappear with the advance in building and plumbing in the state, but the abundance of these spiders in southern California make them an ever present menace. Even in the absence of a known history of spider bite or sting, an excruciating pain spreading over the entire body and becoming especially severe in the abdomen, legs and back, accompanied by nausea, vomiting and constipation, and a board-like rigidity of the abdomen, without definite abdominal tenderness, together with a low-grade fever, leukocytosis, and high blood pressure and spontaneously subsiding within a few days, form so constant a clinical picture as to justify a strong suspicion of arachnidism, or poisoning by the bite of the *Latrodectus mactans*.

This study was made possible only by the encouragement, advice and assistance of friends and co-workers too many to mention here, and it is with a deep sense of gratitude that we acknowledge indebtedness to all who have smiled upon this work and helped it to prosper. It is hoped that anyone who knows of any cases or facts in regard to this subject which have escaped our notice will communicate this information.

Science can occasionally treat disease successfully, and medicine should not forsake her precepts; but without the aid of that subtle art of understanding his fellow-man, the physician will fail in successfully treating his patients.—George Draper, M.D., *Harper's Monthly Magazine*.

RICKETS AT HIGH ALTITUDES, WITH SPECIAL REFERENCE TO ITS OCCURRENCE IN UTAH

By EUGENE H. SMITH *

NO COMPREHENSIVE survey of the geographic distribution of rickets in the United States has been attempted. Most of the intensive studies of the disease have been made in large centers of population, at or near the sea coast, and among the dispensary classes.¹ As a small contribution to such a survey the following data are offered. They summarize observations made during a period of about three years in a small city situated upon the semi-arid western slope of the Rocky Mountains. The children were from families representing, as might be said, a cross-section of an average American community. Exclusive of a small group of Japanese children, tabulated separately, they were almost, without exception, of native parentage. About one-half were observed in the community well-babies clinic. This institution is not regarded as a charity, and as a consequence its clientele is drawn from all classes. The others were observed in the course of a general pediatric practice, and the findings in both groups are the result of my personal examinations.

The general hygienic surroundings of these children were much better than those of the poor of the larger cities. Ample fresh air and sunshine were available for all, and outdoor life is possible during the greater part of the year. Most families occupy detached one-story houses, and overcrowding is almost unknown.

GEOGRAPHY AND METEOROLOGY

Ogden, Utah (population about 35,000), is situated at an elevation of 4310 feet above sea level, with the Wasatch range of the Rocky Mountains (10,000 feet) rising abruptly to the east, and facing the Great Salt Lake Basin on the west. Its latitude is 41.1 degrees north, almost exactly that of New York City. Yearly averages for certain meteorological conditions prevailing in this region are compared with those of several of the coast cities of the United States in Table I.

The average of the actual hours of sunshine in this locality is therefore much greater than that of the coastal cities with the exception of Los Angeles. It is a region of scanty precipitation, low humidity, with a yearly temperature average about the same as New York City. Regarding the distribution of sunshine during the year, it may be added that, during the months of December, January and February, the sunshine averages 44, 45 and 47 per cent

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TABLE I

A COMPARISON OF METEOROLOGICAL CONDITIONS PREVAILING IN UTAH WITH THOSE OF CERTAIN SEA COAST CITIES ~ ANNUAL AVERAGES.

| | LATITUDE | ACTUAL HOURS SUNSHINE | CLEAR DAYS | PRECIPITATION. | HUMIDITY | | TEMPERATURE |
|----------------|----------|--------------------------|------------|----------------|----------|------|-------------|
| | | | | | A.M. | P.M. | |
| SALT LAKE CITY | 41.1 N | 2905 | 153 | 16.37 | 60 | 47 | 51.6 |
| LOS ANGELES | 34.3 N | 3187 | 173 | 15.24 | 78 | 62 | 62. |
| SEATTLE | 47.4 N | 2022 | 76 | 33.43 | 87 | 67 | 51.3 |
| NEW ORLEANS | 30.0 N | 2530 | 128 | 57.42 | 78 | | 69.0 |
| NEW YORK | 41.6 N | 2638 | 107 | 44.63 | 74 | 68 | 52. |

of possible, and during the months of June, July, August and September, 76, 80, 75 and 75 per cent.

ALTITUDE AND LATITUDE

In view of the undoubted value of the ultra-violet rays of the solar spectrum in the prevention and cure of rickets, great interest attaches to a study of the comparative richness in these rays of sunlight at high and low altitudes. Exact figures for the relative values for the shortest wave lengths at different altitudes are not yet available. Measurements of the ultra-violet radiations from the sun made at Mount Wilson, California, altitude 5800 feet, show that there is a considerable variation in the amount of ultra-violet light received from the sun from day to day, amounting to about 35 per cent in the extreme. Whether this is due to variation in ozone content of the earth's atmosphere or to the sun itself, or in part to both, has not yet been settled. No direct measurements have yet been made at sea-level (by the Mount Wilson Observatory) for comparison with those made at the higher altitude. However, measurements of radiations for different altitudes of the sun show that when the amount of air through which the beam of light travels is doubled, the ultra-violet light is diminished 68 per cent of its value on a clear day, which would approximate the figures one might expect in going from the mountain to sea-level. These observations refer to radiations of 310 millimicrons.²

Table II, taken from a paper by Mr. Herbert H. Kimball, Meteorologist in the United States Weather Bureau, Washington, D. C. (to be published), while it deals with wave lengths greater than those which probably have any specific influence on rickets, is of interest in this connection. The following points brought out by these figures may be emphasized:

- 1. The much higher values of energy from solar radiation at Mount Wilson than at Washington, with the sun at the same zenith distance.
- 2. The more marked decrease in values of these radiations with the sun at greater zenith distances, at Washington compared with Mount Wilson.
- 3. The richness in these rays of the diffuse radiation

from the sky, and their fairly even distribution at different zenith distances, after the maximum has passed.

Since atmospheric absorption is probably the chief obstacle to the passage of these rays to the earth's surface, it is evident that the altitude of the sun above the horizon will be an important factor in determining the richness in ultra-violet rays of sunlight at any given point. Therefore, other things being equal, the nearer to the equator and the closer the approach of the sun to the zenith, the less will be the absorption. Thus latitude will be seen to be the second geographic factor which may influence the incidence of rickets.

The following table summarizes the physical findings in 233 cases of rickets observed in this region during a period of about three years. Included in this series are 109 cases found in the course of the examination of 597 consecutive children at the infants' welfare station, an incidence of 18.2 per cent. Sixteen, or 26 per cent, were found in a group of fifty-four Japanese children.

SEASONAL INCIDENCE AND AGE

Since these infants were not under constant observation from birth no conclusions can be drawn as to the time of year or the age at which the condition first became manifest. The figures given merely indicate the season and age when the child first came under observation.

FOOD

These babies were breast fed in quite a large proportion of cases. Of 212 infants 158 were breast fed for six months or longer. Some of these were

TABLE II

RELATIVE INTENSITY OF RADIATION FROM THE SUN AND SKY AT WAVE-LENGTH 397 mμ, AS RECEIVED ON A HORIZONTAL SURFACE, WITH THE SUN AT DIFFERENT ZENITH DISTANCES, Z.

AVERAGE CLOUDLESS DAY.

| | WASHINGTON D.C. LATITUDE 38.53 N SEA LEVEL | MT. WILSON, CALIF. LATITUDE 34.3 N ALTITUDE 5800 FEET |
|----------------|--|---|
| SOLAR, Z 25° | 151. | 217. |
| SKY | 135. | 73. |
| TOTAL | 286. | 290. |
| SOLAR, Z 60° | 46.0 | 89.5 |
| SKY | 80.3 | 58.5 |
| TOTAL | 146. | 148. |
| SOLAR, Z 70.7° | 15.9 | 43.0 |
| SKY | 64.7 | 50.5 |
| TOTAL | 80.6 | 93.5 |
| SOLAR Z 78.7° | 2.6 | 13.5 |
| SKY | 50.9 | 45.8 |
| TOTAL | 53.4 | 59.3 |

TABLE III
SUMMARY OF CLINICAL SIGNS FOUND IN
233 CASES OF RICKETS

| FEEDING | | | CRANIO TABIES | OPEN FONTANELLE [Ⓐ] | CHEST DEFORMITY | BEADING RIBS | DELAYED DENTITION [Ⓑ] | POOR MUSCLE TONE | WIDENED RADIAL EPIPHYSES | BOW LEGS | DELAYED WALKING [Ⓒ] | AGE | | |
|-------------------------|----------------------|------------|------------------|---------------------------------|--------------------|-----------------|-----------------------------------|---------------------|-----------------------------|----------|---------------------------------|------------|--------------|------------|
| BREAST 6 MO. OR OVER | BREAST OVER 1 YR. | ARTIFICIAL | | | | | | | | | | 1 TO 6 MO. | 6 MO TO 1 YR | OVER 1 YR. |
| 158 | 22 | 54 | 6 | 15 | 142 | 215 | 12 | 95 | 51 | 21 | 14 | 45 | 98 | 74 |
| JAPANESE CHILDREN | | | | | | | | | | | | | | |
| 16 | 9 | 0 | 0 | 1 | 9 | 16 | 0 | 9 | 1 | 8 | 1 | 0 | 4 | 12 |

- Ⓐ LARGE AT 18 MONTHS
- Ⓑ FIRST TOOTH AT 1 YEAR OR LATER
- Ⓒ WALKED AT 14 MONTHS OR LATER.

given some form of supplemental feeding, usually modified cow's milk. Twenty-two were nursed longer than one year. In fifty-four instances the baby was taken from the breast before it had reached the age of 6 months. Most of the artificially fed were given modified cow's milk, and the number fed on condensed milk and "drug store" foods was noticeably small.

BEADING

This was by far the most constant symptom, and occurred in practically all cases. Slight beading in young infants without other signs of rickets was disregarded.

CHEST DEFORMITIES

Under this heading are included flaring of the costal borders, Harrison's groove, and lateral narrowing of the thorax. Among our babies a typical circular symmetrical chest is rather rare. Some degree of lateral narrowing or flaring is present in such a large proportion of infants under 2 years that their absence is a matter of comment. The frequency with which they occur without other indications of rickets forces the conclusion that other conditions must often produce these deformities.

MUSCLE TONUS

Poor muscle tone must be looked upon as one of the outstanding symptoms of rickets. Even in the absence of bony deformities, its presence in marked degree strongly suggest the presence of the disease. In the development of chest deformities and protuberant abdomen the factor of the lack of muscle tone is very evident. Furthermore, if the tone of

the skeletal muscles is any criterion of those of the organs of circulation, digestion and respiration, the physiological functions of these systems must of necessity be greatly impaired, and their response to effort and their resistance to disease greatly impaired.

EPIPHYSES

No radiological studies of the epiphyses were made in these cases and note was made only of widening of the lower end of the radius as determined by inspection and palpation.

CRANIOTABIES

This condition occurred infrequently among babies in this series, only six cases having been encountered in children presenting other signs of rickets. Craniotabies, so frequently found in otherwise normal babies during the first few months of life, was not considered to be diagnostic of rickets.

BOW-LEGS

Bow-legs of more than slight degree was found in twenty-one instances; a few of these were very marked. Among sixteen Japanese children found to have rickets, eight had decided bow-legs. It is to be remembered, however, that more or less bowing of the tibiae seems to be a racial characteristic and is frequently encountered in rather marked degree in Japanese children with no other sign of the disease.

SUMMARY

The recent voluminous literature of rickets contains comparatively few references to the geographical distribution of the disease. In particular, few

studies appear to have been made of the incidence of the condition in localities outside large centers of population, and at considerable elevations above sea-level.

In view of the influence of the short wave lengths of the solar radiations on the development of this disease, and that fact that atmospheric absorption of these rays is greater at lower altitudes and higher latitudes, it follows that the most important geographical factors which enter into the problem of rickets would be elevation above sea-level and distance from the equator.

Rickets was found to be present in 18.2 per cent of 597 children living under excellent hygienic conditions in a small city in the western Rocky Mountain region, at an elevation of 4310 feet, lying in the same degree of north latitude as New York City.

In a series of Japanese children living in the same locality, 26 per cent had active or healed rickets.

An analysis of 233 cases of rickets indicated that the most important physical signs, in the order of their frequency, were beading of the ribs, chest deformities, and poor muscle tone. Twenty-one cases of bow-legs were noted in children having other signs of rickets.

The factors of good hygiene and sanitation, abundant sunshine and out-of-door living, together with the greater values in ultra-violet radiations of the sunlight at this altitude, probably account for the low incidence of rickets in this region, 18.2 per cent as compared with 50 to 80 per cent among the poorer classes in eastern sea-coast cities.

REFERENCES CITED

1. Forbes, Roy and Green, Berryman: Incidence of Rickets in Colorado with Report of a Clinical Survey and Climatological Observations, *Colorado Med.*, 22: 69, 74, February, 1925.
Forbes, R. P.; Green, Berryman, and Stephenson, F. B.: Rickets in Colorado, *Arch. Ped.*, 63:2, 131, February, 1926.
2. Personal Communication, Dr. Edson Pettit, Carnegie Institution of Washington, Mount Wilson Observatory, Pasadena, California.

Spahlinger Treatment of Tuberculosis (Propaganda for Reform)—Notwithstanding the fact that the Spahlinger treatment of tuberculosis was secret and that evidence in its favor had not been made generally available, Spahlinger and his friends have repeatedly attempted to secure government endorsement of the preparation in England and to secure funds for its development. Now the records of ten patients injected by Spahlinger personally with this remedy have been reported by Dr. Thomas Nelson in the *London Lancet*. These records are decidedly unfavorable to the treatment. The evidence in favor of the Spahlinger method of treatment of tuberculosis is not sufficient at this time to warrant an extensive trial. The burden of proof is still on Spahlinger, who should at least show that in a considerable number of cases studied under controlled conditions the remedy will accomplish more than can be accomplished by the method of treatment now practiced in well-regulated institutions for the treatment of tuberculosis.—*Journal A. M. A.*, January 22, 1927.

Kloron (Propaganda for Reform)—Qualitative tests made in the A. M. A. Chemical Laboratory indicate that Kloron Tablets (J. I. Holcomb Mfg. Co.) contain Chloramine—U. S. P. as their potent ingredient. The claims made for the preparation are typical of the extravagant exploitation of official products by the "patent medicine" route.—*Journal A. M. A.*, January 8, 1927.

MONGOLISM IN BOTH OF TWINS

By LLOYD B. DICKEY *

(From the Division of Pediatrics, Stanford Medical School)

REUBEN AND KLEIN (*Arch. Ped.*, August, 1926, 43:552-554), recently reviewed the literature on mongolism in twins. They were able to find a total of seventeen cases in one of twins, in all of which the twins were of opposite sexes. They also found recorded in the literature three cases in both of twins, and added a fourth, observed by themselves, the twins always being of the same sex.

Dietrich and Berkley (*Calif. and West. Med.*, April, 1926, 24:498-499), report two cases of mongolism in one of twins. The first pair are both males, age 8 weeks; the second pair are females, age 5 months. In view of the fact that in all previously reported cases of mongolism in one of twins (seventeen in number) the sexes are opposite, it would be interesting to know whether these very young infants at present showing no signs, later develop evidences of this condition.

CASE REPORTS

These twins were delivered by Dr. Bertram Stone on April 12, 1914. The parents said that they were exactly alike in every respect as they grew up. As they became older, they were told by several doctors that both children were "feeble-minded." Snapshots, taken several years before the death of one twin, were shown by the parents. These showed two boys with similar facial characteristics.

W. B., twin 1, boy, age 10 years. Father was 48 years of age at birth of child, mother 43 years (now 58 and 53, respectively, living and well). Normal birth. Examination showed a very much overweight child with typical mongolian facies, slanted palpebral fissure, inner epicanthic fold, with broad base to nose. The skull was flattened posteriorly, the hair of the scalp was coarse. The nasal passages were greatly occluded, the mouth always open, and the teeth spaced. The tongue was large, and the surface slightly geographic in character. The abdomen was somewhat protuberant, the genitals infantile. The little fingers were much shorter than the others. The child was probably an imbecile rather than an idiot. He could use many words, but his sentences were poorly constructed.

B. B., twin 2. This child was not seen in our clinic. It died several months previous to the visit of its brother, of diphtheria. The records of the San Francisco Isolation Hospital show that this child had, in general, the same physical characteristics as were noted in the other twin, in our clinic. The mental condition was also recognized. It had a bronchopneumonia in addition to its diphtheria while at the San Francisco Hospital. Both twins were seen shortly before the death of one by Dr. John Sullivan, who noted the striking similarity, and whose impression was that the twins were of the mongolian type, both physically and mentally.

I wish to thank Doctor Stone and Doctor Sullivan for their cooperation in helping me assemble data for these cases.

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Special Article

CONCERNING THE ETIOLOGY AND TREATMENT OF MEASLES

By ERNEST C. DICKSON, M. D.

THE EDITOR: Reports of the California State Board of Health which show that we are in the midst of an epidemic of measles that is widely distributed over the state makes it fitting to publish a brief review of recent investigations concerning the etiology and specific treatment of this disease. Such a review, prepared at our request by Ernest C. Dickson, Professor of Public Health, Stanford University Medical School, is submitted.

SEARCH for the infectious agent in measles has been going on for many years. In 1758 Home¹ in Edinburgh and Herne² in France believed that they had demonstrated that measles could be transferred from a patient to susceptible children by means of cotton which was soaked with the blood of the patient and applied to incisions in the arm of the susceptibles. There is some doubt as to whether they really produced measles, although several investigators have reported that they confirmed their observations. However, in 1905, Hektoen³ proved that measles can be transferred from patients to susceptibles by injecting blood of the patients into the veins of the susceptibles, and showed that the virus is present in the blood at least twenty-four hours before and thirty hours after the appearance of the rash.

In 1917 Tunncliff⁴ reported the isolation from the blood of measles patients of a minute, filter passing, diplococcus which produces a green pigment, and she later showed that the same organism can be cultivated from the secretions of the respiratory tract at the same time as it is present in the blood. Specific antibodies for this organism can be demonstrated in the serum of patients who are convalescent from measles, and skin tests, analogous to the Schick test and the Dick test, can be demonstrated in susceptible individuals. Moreover, Tunncliff and her associates⁴ showed that a disease which closely resembles measles can be produced in monkeys, rabbits, and guinea-pigs, by injecting them with this diplococcus.

Several investigators, notably Thomson,⁵ Caronia,⁶ and Ferry and Fisher,⁷ have also isolated diplococci which appear to differ somewhat from those described by Tunncliff, but still others⁸ have confirmed Tunncliff's observations, and Hoyne and Gasul⁹ believe that the apparent differences are due to differences in cultural methods, and that all are really dealing with the same organisms.

Be that as it may, the evidence is strongly indicative that Tunncliff, and probably the other investigators have established the bacterial cause of measles.

PROPHYLAXIS

Of more immediate interest to medical practitioners, however, is the work which is being done along the lines of prophylaxis and specific therapy of measles. This is being followed along two lines: (1) to induce the formation of antibodies by the individual himself; active immunization, and (2)

to develop means by which antibodies can be supplied to him when he needs them: passive immunization.

ACTIVE IMMUNIZATION

Attempts to induce active immunization of children who are susceptible to measles have not progressed beyond the realm of experiment, and this method cannot as yet be recommended for general application.

Investigators have approached the problem mainly along three lines:

1. It is well known that infants born of mothers who are immune to certain of the communicable diseases passively acquire antibodies from their mother's blood through the placenta, and that for four to six months after birth they are relatively resistant to these diseases.

Herrman¹⁰ sought to take advantage of this temporary passive immunity to measles and recommended that infants should be inoculated with measles by the transfer of measles virus from the nasopharynx of a patient to the nasopharynx of the infant. His object was to stimulate active immunization of the infant by injection which would be very mild because of the presence of the mother's antibodies. The method is obviously impractical, and in many ways objectionable, particularly in family practice.

2. Hiraishi and Okamoto¹¹ and Debré and his associates¹² recommended repeated injections of minute quantities of blood from measles patients, taken during the early stages of the disease when the blood contains living virus. Their results have not been uniform.

3. Sindoni,¹³ an associate of Caronia, prepared bacterial vaccines from the diplococcus which Caronia⁶ isolated from measles patients and gave repeated injections of the vaccine to susceptible children. He concluded that the results were of sufficient promise to justify further investigation.

PASSIVE IMMUNIZATION

(a) Use of convalescent serum.

In 1916 Nicolle and Conseil¹⁴ succeeded in protecting susceptible children from measles by injecting small quantities of blood serum or whole blood from patients who were convalescent from measles. Their report was published in 1918, and in that year Richardson and Connor¹⁵ reported similar satisfactory results from a group of tests in Boston. Park and Zingher, in New York, commenced their observations in 1916 and have done much to develop this method of prophylaxis.

Zingher in 1924¹⁶ reviewed the work which had been done and reported a series of cases, and in 1926 Park and Freeman¹⁷ brought the report from New York to date. These investigators found that among 753 cases treated in institutions, 84 per cent showed completely successful results; that is, the children did not develop measles after contact, whereas 95 per cent showed some degree of benefit, either complete protection from the disease, or marked attenuation of the severity of illness. In family practice, among 226 cases, the results were less satisfactory, only 52 per cent of children re-

maintaining free from measles although 95 per cent were more or less benefited.

Many other investigators have reported similar results, and there are no records of ill effects when care is taken to ascertain that the donors are free from syphilis, tuberculosis, and other communicable diseases.

The dose of immune serum as recommended by Park and Freeman¹⁷ is 6 cc. of serum or plasma for children under 3 years of age and 6-10 cc. for children over three. The antibody content of the serum is greatest within a few days after convalescence, but is still relatively high for at least a month. Rietschl¹⁸ recommended that serum from adults who have had measles may be used, but the dose required is much larger than when convalescent serum is used and the results are much less uniform. When whole blood is used instead of serum, double the stated dose for serum should be administered and Zingher¹⁶ states that this is not damaged by the addition of citrate and may be given intramuscularly.

Park and Freeman¹⁷ report that if the serum is given within three days after exposure to infection the onset of the disease is prevented in the great majority of cases, and if on the fourth or fifth day, the course of the disease is mild and complications are unusual. Zingher¹⁶ recommended larger doses for late administration, 7.5 cc. for children 3 years old on the seventh or eighth day being sufficient to ameliorate the course of the disease.

The duration of immunity from convalescent serum is from two to four weeks, after which the child is again susceptible to measles. It follows that its use is of greatest value in children under 3 years of age in whom the mortality from measles is very high, and in debilitated children or those suffering from other types of disease which might endanger their recovery. In older children it is recommended by some that only sufficient serum be administered to insure a mild attack of the disease as it is by actual infection that active immunization and subsequent resistance to infection can be obtained.

ANTITOXIC SERUM

Various investigators have attempted to produce an antitoxin which can be produced commercially since, at best, the available supply of immune serum must be limited. Tunncliff and Hoyne¹⁹ have recently reported successful immunization of goats with the production of a serum which has proved to be highly potent. They found that 97 per cent of individuals over 1 year of age and 98 per cent of infants less than 1 year of age were protected from measles if the goat serum was given within three days of exposure to infection, and that 45 per cent of cases over 1 year old were protected if they received the serum on the fourth day. They employed goat serum in order that there might not be sensitization to horse serum, which is the vehicle of diphtheria and scarlet fever antitoxin, and reported only 12 per cent of cases of serum disease.

These observations are of utmost importance because they indicate that in the near future we may have specific antitoxin for the treatment of measles. It should be remembered, however, that the work

is still in the experimental stage and that it may be some time before commercial serum is on a par with that for the treatment of diphtheria.

REFERENCES

Extensive bibliography is contained in the cited articles as well as in a review by O'Hara, D., *Boston Medical and Surgical Journal*, 1926, 195:561.

1. Home, F.: *Medical Facts and Experiments*, London and Edinburgh, A. Millar, 1759.
2. Herne: Cited from Petges and Godaud, *Jour. de Méd. de Bordeaux et due Sud. Ouest.*, 1926, 103:573.
3. Hektoen, L.: *Jour. Infect. Dis.*, 1905, 2:238.
4. Tunncliff, R., et al.: References listed in *Jour. Infect. Dis.*, 1926, 38:48.
5. Thomson, D.: *Jour. Trop. Med.*, 1923, 26:227.
6. Caronia, G.: *Pediatrics* (Naples), 1923, 31:801.
7. Ferry, N. S., and Fisher, L. W.: *Jour. A. M. A.*, 1926, 86:932.
8. Hibbard, R. J., and Duval, C. W.: *Proc. Soc. Exp. Biol. and Med.*, 1926, 23:853.
9. Hoyne, A. L., and Gasul, B. J.: *Jour. A. M. A.*, 1926, 87:1185.
10. Herrman, C.: *Archiv. Pediat.*, 1915, 32:503.
11. Hiraishi, S., and Okamoto, K.: *Japan M. World*, 1921, 1:10.
12. Debré, R., et al.: *Annal. de Méd. (Paris)*, 1926, 20:343.
13. Sindoni, M. B.: *Pediatrics* (Naples), 1925, 33:173.
14. Nicolle, C., and Conseil, E.: *Bull. et Mém. Soc. Méd. de hop. de Paris*, 1918, 42:336.
15. Richardson, D. L., and Connor, H.: *Jour. A. M. A.*, 1919, 72:1046.
16. Zingher, A.: *Jour. A. M. A.*, 1924, 82:1180.
17. Park, W. H., and Freeman, R. G.: *Jour. A. M. A.*, 1926, 87:556.
18. Rietschl, *Ztschr. f. Kinderh.*, 1921, 29:127.
19. Tunncliff, R., and Hoyne, A. L.: *Jour. A. M. A.*, 1926, 87:2139.

Cass Treatment for Rheumatism (Propaganda for Reform)—One hundred and thirty-seven West Sixty-Second Street, Chicago, houses a choice line of quackery. Under the names "Western Medical Association" and "Vernon Laboratories" a fake "epilepsy cure" is exploited on the mail-order plan. Under the name "Cass Laboratories," nostrums for rheumatism, sciatica, neuralgia, lumbago, and gout are sold—also through the United States mails. The A. M. A. Chemical Laboratory reports that the "Cass treatment" consists of pink tablets, "Special Saline Compound" and gray tablets. The laboratory found the pink tablets to contain 0.6 Gm. of sodium bicarbonate per tablet. The "Special Saline Compound" was found to be essentially flavored magnesium sulphate. The gray tablets were found to contain essentially 0.16 Gm. acetylsalicylic acid, 0.13 Gm. cinchophen and 0.3 Gm. charcoal per tablet. From the laboratory's report it is seen that this wonderful discovery "developed under the direction of the head professor of chemistry at one of the nation's largest universities," and declared by "two of the foremost medical scientists in this country" to be superior to anything else in its line, is merely a combination of acetylsalicylic acid and cinchophen with sodium bicarbonate and magnesium sulphate.—*Journal A. M. A.*, January 15, 1927.

Physical Therapy and Pseudophysics (Propaganda for Reform)—Much of the literature on physical therapy has apparently been written with an eye to the royalty statement or the publicity returns rather than to the possibility of scientific criticism. These treatises become impressive, in size at least, by the inclusion of statements on the physics of the apparatus culled almost in toto from the advertising and descriptive matter published by a manufacturer. This practice might be commendable if the physical concepts were not often wholly at variance with the concepts generally accepted by physicists. The physician who desires a substantial knowledge of physical therapy must choose his sources of information carefully.—*Journal A. M. A.*, January 15, 1927.

CLINICAL NOTES, CASE REPORTS AND NEW INSTRUMENTS

TISSUE DIAGNOSIS IN THE OPERATING ROOM

AND IMMEDIATE COVER-SLIP EXAMINATIONS OF ALL FLUIDS AND PUS

By JOSEPH COLT BLOODGOOD, M. D.
(Baltimore)

I will consider it a courtesy, writes Doctor Bloodgood, if you will publish this letter in your journal, as I am anxious to come in correspondence with pathologists and surgeons interested in the immediate examination, by frozen section, of tissue in the operating room and the immediate cover-slip studies of smears from all fluids and pus.

Microscopic examination of stained frozen sections has been possible for more than a quarter of a century. The staining of unfixed frozen sections with polychrome methylene blue and other stains is a well-established procedure. In many operating rooms in university and other large and small surgical clinics, provisions for these immediate diagnostic studies have not only been available, but have been in practical use for years. While, unfortunately, on the other side, this diagnostic part of the operating room is conspicuous by its absence in many clinics.

Before 1915 it was rarely necessary for a surgeon well trained in gross pathology to need a frozen section to help him in diagnosis at the operating table. Since 1915, and especially since 1922, the public has become so enlightened that malignant disease formally easily recognized either clinically or in the gross, now appears in our operating rooms devoid of its easily recognized clinical and gross appearance and can only be properly discovered by an immediate frozen section. The majority of operating rooms are not equipped or prepared for this new diagnostic test.

The first essential part for this diagnosis is the technician—one to cut and stain the frozen section, or to make and stain the smear. The second is a pathologist trained to interpret it. It is possible for the surgeon to be all three in himself, and some young surgeons are so equipped. In others it is a dual combination—surgeon and pathologist in one, and the technician. More frequently it is three—operator, technician, and pathologist. It makes little difference whether it is one, two or three individuals, providing each has the equipment and training for this most difficult diagnostic test.

In the address as chairman of the surgical section of the Southern Medical Association I discussed biopsy, and this paper has been published in the Southern Medical Journal for January, 1927 (Vol. XX, page 18). A reprint of this paper will be sent to anyone on request. The chief object of this letter is to come in contact with surgeons and pathologists who are sufficiently interested in this problem to discuss it either by correspondence, or by attending a meeting in the surgical pathological laboratory of the Johns Hopkins Hospital, either the Monday before, or the Friday after the meeting of the American Medical Association in Washington.

Schools for technicians may have to be established in different sections of the country, and the surgical pathological laboratories of the medical schools and the larger surgical clinics should offer courses in this tissue diagnosis so that surgeons may learn to become their own pathologists, or pathologists learn the particular needs of the surgeon in tissue diagnosis in the operating room.

It is quite true that when the majority of the public are fully enlightened the surgeon will see lesions of the skin and oral cavity and the majority of subcutaneous tumors when they are so small that their complete excision

is not only indicated, but possible without any mutilation. The chief danger here will be a surgical mistake—the incomplete removal of an apparently innocent tumor. There is no necessity here for biopsy. If a proper local excision is done, no matter what the microscope reveals, that local operation should be sufficient. But when lesions of the skin, oral cavity and soft parts are extensive and their complete radical removal mutilating, then there must be biopsy to establish the exact pathology.

In tumors of the breast and disease of bone, for years, the diagnosis could be made clinically, or from the gross appearances at exploration. But now, an increasing number of cases, the breast tumor must be explored, and the gross pathology of this earlier stage is not sufficiently differentiated to allow a positive diagnosis. Immediate frozen sections are essential to indicate when the complete operation should be done. The same is true of the earlier stages of lesions of bone. The x-rays no longer make a positive differentiation between many of the benign and malignant diseases, for example, sclerosing osteomyelitis and sclerosing osteosarcoma.

We must not only specialize in tissue diagnosis, but we must organize this department so it will function properly in as many operating rooms as possible in this country.

Then there is a final and most difficult question to consider. I doubt if it can be settled. What shall be done in those operating rooms in which there is no technician to make the sections and no one trained to interpret the microscopic picture? How can a piece be excised or a tumor removed, for example, from the breast, and this tissue sent to some laboratory for diagnosis without incurring the risk of the delay to the patient. I have discussed this point in my paper on biopsy.

DON'TS IN DERMATOLOGIC DIAGNOSIS

By MOSES SCHOLTZ *

1. Do not try to make a dermatologic diagnosis from a picture in the atlas of skin diseases. In nine out of ten cases you will fail. Correct diagnosis can be made only from a study of the individual skin lesions and by analysis of differential morphologic features.

2. Do not make definite statement as to diagnosis under artificial or deficient light. A correct perception of color shadings is one of the most important factors in dermatologic diagnosis, and the daylight may completely reverse your opinion.

3. Do not base your diagnosis on history as it is given by the patient. In a majority of cases the history is unreliable and misleading. You are much safer to base your diagnostic conclusions on the present skin lesions, which supply all or most of the evidence you need. In this respect the technique of dermatologic diagnosis sharply differs from that of the internist.

4. Do not be satisfied with the examination of the part of the body that the patient chooses to show you, but inspect the whole of the body, particularly in all doubtful cases. If you do not inspect the body you may miss the most characteristic patch, and your clue to diagnosis.

5. Do not exaggerate the importance of the presence or absence of itching in dermatologic diagnosis. Itching is a subjective symptom and varies greatly with the personality of a patient.

6. Do not forget that the original clinical picture is often disguised and concealed by secondary acute derma-

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titis from irritating local medication. In these cases give a soothing ointment and defer the final diagnosis until this secondary inflammation subsides and reveals the original condition in its primary state.

7. Do not call an eruption "eczema" in the absence of the following features: Irregular round or square-shaped lesions, ill-defined diffuse borders, marked tendency of individual lesions to coalesce into patches, equal involvement of the central and peripheral parts, spreading by continuity, itching, absence of ulceration and scarring.

8. Do not try to force under one diagnosis all the patient's skin lesions. Remember that quite often the patient shows two or three different types of skin lesions, merely coexistent but entirely independent from each other.

9. Do not venture a diagnosis of a scabby or crusted lesion until you clean it up and see its base; a dirty, harmless-looking crust may conceal a number of very serious conditions.

10. Do not expect every "ringworm" to look like a ring. In fact, only a small minority of them look so. Diagnosis of ringworm is made on sharply defined borders, circinate shape and scaly margined borders showing an "epidermal collarette." Incidentally, itchy, eczematoid, scaly patches between the toes, in the groins and axillae are in the majority of cases caused by ringworm.

11. Do not waste energy on trying to differentiate between eczema and dermatitis. It is the consensus of opinion of dermatologists that eczema and dermatitis are perfectly identical conceptions and may be used as interchangeable terms.

12. Do not forget that syphilis may simulate any dermatosis. However, the following "specific" features, if present, single or combined, suggest and often clinch diagnosis: raw ham, dusky red color, serpiginous or kidney shape, deep induration or infiltration, absence of itching, comparatively rapid involution, tendency toward ulceration and formation of thin, soft, atrophic "wrinkled cigarette paper" scars.

13. Do not overlook scabies in your well to do patients.

14. Do not mistake, as is often done, harmless pityriasis rosea for a secondary syphilide. Bathing trunk distribution, complete freedom of face, palms and soles from buff pinkish color, superficial scaling and activity at the lesion's edges, and the presence of "mother" patch will readily differentiate it from syphilis.

15. Do not ask the patient superfluous questions such as, "does it itch?" If it does you will see excoriations and scratch-marks.

16. Do not expect bulky "stuck on" crusts in every case of impetigo, i. e., streptoderma. It can be readily recognized by sharply defined borders, circinate shape, extremely superficial character of the lesions and, particularly, by a tendency to produce rapidly bursting bullae and serous exudate, leaving a moist, dark red velvety surface.

17. Do not fail to notice and examine insignificant-looking, brownish scabby or crusty patches on the face and hands of middle-aged people. Some of them may be potential or active incipient epitheliomata.

18. Do not mistake "insect bites" (so often observed in young children) appearing as large inflammatory papules, and do not call them hives or food rash. The presence of "stiletto," a small central opening, localization on the exposed surfaces and a peculiar triangular grouping readily identifies the nature of the condition.

19. Do not be influenced too much by Wassermann test in dermatologic diagnosis. Negative Wassermann occurs not uncommonly in the presence of active typical syphilides. Positive Wassermann means only that the patient had or has syphilis, but it does not necessarily mean that the present skin lesion is specific. A syphilitic may and does often contract other skin diseases.

20. Do not encourage the mistaken notion of laymen that most of the skin diseases are due to "blood poisons" and various systemic factors. You will be surprised to find what a large percentage (at least 30 per cent) of skin disorders in California are caused by local bacterial or mycotic infections.

ACUTE INTESTINAL OBSTRUCTION

REPORTING A CASE WITH RARE PATHOLOGICAL FINDINGS

By SAMUEL FLOERSHEIM

A widow, 62 years of age, very thin, always in good health, was suddenly attacked with symptoms of acute intestinal obstruction. Although the abdomen was quite thin and flaccid no definite tumor mass was outlined. Efforts to relieve the obstruction only served to increase the vomiting and abdominal distress. She refused to go to a hospital, to leave her home, or to have x-rays or other laboratory diagnostic aids employed. A surgeon was induced to attempt relief of the obstruction if possible or, failing in that, to do a colostomy under local anesthesia in the patient's home.

The scene was on the third floor of a tenement house and in the rear room. The kitchen was cleared, a large round table, with one center board removed, was used. With one nurse assistant, the patient was prepared as well as possible under the conditions and a local anesthetic was given, the surgeon and I proceeded to do an exploratory abdominal operation.

The descending colon was found moderately distended, while the sigmoid was collapsed but without signs of congestion, strangulation or gangrene. The upper pole of the sigmoid was encircled by two wide bands of fibrous tissue, each nearly two inches wide. From this point there was a sheet of tissue running across the abdomen to the right side, being attached to the cecum, then along the inner side of the ascending colon to the hepatic area, then across the abdomen following the transverse colon to the splenic region and downward following the descending colon to the points of constriction. This large area was a mass of countless cysts, which we interpreted as an extensive form of cystic degeneration of the greater omentum. There was some vomiting and nausea, which we attributed to the unrelieved obstruction and not to manipulation.

The two bands of constricting tissue were divided, the outer edges turned in and stitched for obvious reasons and the inner strips dissected from the sigmoid to the cystic mass. With traction on these bands we felt something within the abdomen give way. The surgeon apprehensive as to the damage done, fearing a tear into the intestine, began a careful search for damage, but found none; simply a mass of cysts were dislodged from the main mass. More traction brought through the abdominal opening a mass of golden cystic tissue the size of a cantaloup. Delving again into the abdomen, more cystic tissue were extracted, and finally blunt finger dissection exercised along the tract of the colon, when a large mass of cystic tissue was delivered. The cystic tissue while fresh and warm was of a golden yellow color. No fluids were used in the open abdomen. The parts were carefully mopped dry and the abdomen closed without provision for drainage. Primary union was obtained without the slightest evidences of inflammation, irritation or infection. The sizes of the cysts ranged from about a split pea to nearly twice the size of a baseball. No doubt there were very many minute and small cysts left in the abdomen. We worked one and one-half hours and were hampered by the family and relatives. The patient made an uninterrupted recovery, sat up in bed on the third day, was out about the room on the sixth, and three days thereafter did her daily labor as if nothing had happened. Three years later the patient was well. Inquiry made since my removal from New York to Los Angeles brought out the fact that the patient had died four years after the operation, and the cause of her death was given as heart disease.

A goodly portion of the mass of the cysts removed at the operation was sent to Dr. Emil Schwartz, pathologist, Woman's Hospital, New York City, who reported it to be an extremely rare form of pseudomucinous (golden yellow) cystic degeneration, of which, up to that time, November, 1918, there were but three cases on record. These were found discussed only in Von Bergman's system of surgery.

PANCREATIC CYST WITH DIABETES

By ARTHUR R. TIMME *

THE purpose of this paper is to place on record a case of pancreatic cyst presenting symptoms less commonly found in such cases.

Max Einhorn in March, 1925 (*Am. Jour. Med. Sciences*, Vol. CLXIX, p. 389), and G. L. McWhorter in October, 1925 (*Arch. of Surg.*, Vol. XI, p. 618), have given extensive reviews of the literature on this subject, to which the reader is referred. Einhorn reports two cases of his own, and McWhorter gives an exhaustive analysis of nineteen cases belonging to members of the Chicago Surgical Society.

Opie in his book on *Disease of the Pancreas* (Lippincott, 1910), groups cysts of the pancreas into three classes—retention cysts, proliferation cysts, and pseudocysts. Retention cysts may be said to follow obstruction of the ducts, proliferation cysts are due to cystic degeneration of new growths, while pseudocysts arise "within the substance of the pancreas as a result of degenerative changes affecting the interstitial tissue of the gland" (Opie). This latter group includes those cases of hemorrhage into the gland from trauma, which result in cyst formation. It is this type which chiefly concerns us here. Such cases are not uncommon in the literature. Koerte (cited by Opie and others) found 28 per cent of a series of 117 pancreatic cysts presumably due to trauma, while Takayasu (cited by McWhorter) found the occurrence of trauma in 23 per cent of a series of 130 cysts. E. S. Judd (*Minn. Med.*, Vol. IV, p. 75, February, 1921), however, records a history of trauma in only one out of forty-one cases.

The interval between the initial trauma and the clinical appearance of the cyst is variable—from one week (Lazarus, cited by Opie) to one year, as in the present case.

The largest cyst recorded is that of Rufus B. Hall (*N. Y. Med. Jour.*, Vol. 93, p. 273, February 11, 1911). This cyst was drained and twenty-three pints were removed. N. Bozeman in December, 1881, at a meeting of the New York Pathological Society reported removal in toto of a cyst weighing twenty and one-half pounds. This, however, was not a traumatic case.

Pain is the most constant symptom noted, but was entirely absent in this case. Emaciation is another frequent symptom. Glycosuria, the most important

findings in the present case, is relatively infrequent; Oser (cited by Tice in his "System") found it in only nine out of 134 cases. Other symptoms are nausea and vomiting, jaundice, diarrhea or constipation, and rarely fever and chills.

Pathologically the walls of the cysts following trauma invariably consist of a thick fibrous tissue with round-cell infiltration, but no epithelial lining as was found in the present case. The liquid contents may vary in color, content and consistency—usually dark brown, thick and mucinous, occasionally containing the pancreatic ferments. The cyst most frequently arises from the tail of the organ.

Bozeman (cited above) first excised a cyst in 1881. Gussenbauer (cited by Opie) introduced marsupialization in 1882; this consists of drainage by sewing the cyst to the belly wall. Complete excision is rarely possible because of extensive adhesions. In such cases drainage is the operation of choice.

CASE REPORT

In February, 1926, a married woman of 44 was referred to me for a condition of pain and weakness of the legs of about six months' duration. This proved to be a well-marked neuritis with the usual signs of pain, paresthesias, sensitive skin, tender calves, diminished skin sensations, muscular weakness, and loss of reflexes. It was confined to the legs and was symmetrical. Although she had a marked enlargement of the abdomen she asked that this be disregarded, as she had become resigned to its presence during the last fifteen years.

In searching for the cause of the neuritis a urine with a specific gravity of 1040 and 3 per cent sugar was found.

The following history was obtained:

Usual childhood diseases. Normal onset and course of menstruation. Never pregnant. Sixteen years previously she tripped over a low wire and landed squarely on the pit of the stomach on frozen ground, with the body arched backward, as she had been running fast. No undue discomfort followed. One year later, during an attack of "grippe," an orange-sized mass was discovered in the left upper abdomen. Operation was advised against because of suspected attachment to the spleen. Since then the mass has gradually enlarged until it occupies the entire abdomen. Six years ago she weighed 140 pounds, one year ago 118, now 87. One and one-half years ago severe pyorrhea began, for which she had all teeth except six molars removed. For the past three years she has been having occasional cramps in the legs, and during the last six months the present neuritic condition has become firmly established. For the past two years she has had increased thirst and polyuria. There have been no pain, digestive disturbances, or diarrhea.

Examination showed an emaciated female weighing 87½ pounds. Cranial nerves normal. Ragged tonsils. Heart rapid and weak. Lungs clear. Abdomen greatly enlarged and containing a tense, dull, fluctuating mass; the greater part lies well to the left of the midline. Uterus hard and freely movable; no adnexal involvement determinable; apparently no attachment of this mass to the ovary. Polyneuritis as described above. Blood count normal. Wassermann negative. Urine: 1040 sp. g.; alb. 0; sugar 3 per cent by Purdy; acetone +; diacetic +. Non-protein nitrogen 31.5. Uric acid 3.2. Creatinin 1.2. Blood sugar 320.

In view of the glycosuria and emaciation a pancreatic cyst was suspected and operation advised. This was refused. She was then placed on a diet and given insulin. The glycosuria and hyperglycemia rapidly cleared up and she gained seven pounds in weight. The neuritis was greatly relieved. After several recurrences of the neuritis, however, she finally consented to operation, which was performed by Dr. Albert C. Germann, July 24, 1926. A large pancreatic cyst was found, pushing through the

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Papilloma from inner wall of cyst, also revealing the single layer of columnar epithelium lining cyst and part of cyst wall.

Pancreatic tissue, fat, and the wall of the cyst.

Inner lining of cyst wall consisting of single columnar layer of epithelium of goblet cell type.

gastrocolic omentum, the stomach upward and colon downward. Transomental delivery. Body of pancreas was adherent to the tumor and a pedicle was attached to about the center of the body, nearer head than tail. There was aberrant pancreatic tissue on the surface of the tumor. Impression of the full length of pancreas on the surface of the mass.

Gross Description—Measurements 19 by 17 by 14 cm. Weight 2700 gms. Two thousand two hundred cc. chocolate-colored liquid of rather thick consistency and somewhat mucinous character. No odor. Walls $\frac{1}{2}$ to 1 cm. in thickness, with some areas more fibrous and dense than others. Occasionally a small calcified plaque, the largest of which measures $1\frac{1}{2}$ cm. in diameter. Outer surface shows a linear zone of attachment measuring 19 by 3 cm. in size and along which apparently recent adhesions have been broken up and a few characteristic fragments of pancreatic tissue are still attached. The inner surface of the cyst reveals roughened areas where fibrinous and mucinous material appears to be attached to the wall. Some areas appear to be discolored, varying from yellow to brown. One area shows a papillomatous type of growth, $2\frac{1}{2}$ cm. in diameter and extending 1 cm. into the lumen—a very soft friable mass.

Microscopic—Wall consists of fibrous tissue with some round-cell infiltration. The inner lining reveals some hemorrhage superficially and consists of columnar epithelium with cells of the mucus-secreting type in some areas. Section through the papillomatous mass reveals papillary arrangement with columnar epithelial lining with a number of active mitotic figures observed. There is no definite tendency for outward infiltration of the wall with this growth, but it shows some malignant characteristics.

Diagnosis—Pancreatic cyst. Papilloma of wall of cyst with some malignant characteristics.

The patient made an uneventful recovery. Her glyco-



Pancreatic cyst in the gross. (p) site of attachment of pedicle. (h) impression of head of pancreas.

suria ($2\frac{1}{2}$ per cent by Purdy) and hyperglycemia (303 mg.) soon returned, as well as her neuritic pains. She was again placed on a weighed diet with insulin, with rapid relief of the symptoms.

Credit is due Dr. Albert C. Germann for assistance in working up the case and for the operation, and Dr. H. E. Butka for the pathological preparations and studies.

HYMENOLEPIS DIMINUTA

REPORT OF A CASE

By F. F. GUNDRUM AND J. R. SNYDER *

INFESTATION with the rat tapeworm, *hymenolepis diminuta*, is still sufficiently uncommon to make it perhaps of interest to report the following case.

Boy, F. V., age 15 months, always healthy. Present illness began with symptoms of enteritis. The mother, a trained nurse, noticed the presence of worms and brought a specimen to the office with her. Therein were found: "Besides several small pieces, three complete parasites. Their heads were very small, white, globular, and showed four round suckers near the apex. The rostellum was small and indistinct and showed no hooklets. The longest

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worm measured 20 cm.; the shortest 10 cm. The segments, in breadth about 1 millimeter, were broader than long, except near the caudal end. The neck segments were not visible to the unaided eye. The number of segments in the longest worm was about 700. The neck was rather long and only slightly narrower than the head. The ova were usually slightly oval, but some appeared quite round. They were slightly yellowish, double-walled with a clear space between the walls. Four to six hooklets were seen spread out fan-shape in the central, granular portion of the ovum. There were slight protuberances of the inner wall in line with the long axis. The caudal segments of the parasites were almost completely filled with ova." A specimen was sent Professor Kofoid, who confirmed the diagnosis. After the administration of male fern five more worms were passed. The enteritis subsided and the patient has continued in good health. The premises where the patient lives are rat free. The father of the patient is employed in a granary, where rats are plentiful and where meal moths are apt at times to be plentiful. The mother had noticed that the little boy frequently found and ate grain kernels filched from the cuff of the father's trousers when he returned from work. It seems likely that the mode of infection was through moths, known to be carriers of the larvae of this tapeworm.

Diagnostic School Clinic in Public Schools as Factor in Conservation of Hearing—During the past year, acting in the capacity of consulting otologist to the Minneapolis public schools, Horace Newhart, Minneapolis (*Journal A. M. A.*), has gained some experience in supervising the preliminary work of establishing a public school ear clinic in Minneapolis. He is convinced that the diagnostic ear clinic in the public schools offers the greatest possibilities in successfully preventing unnecessary deafness. The details of its organization and procedure must vary with local conditions regarding population and existing facilities, but the general principles must be much the same wherever the work is undertaken. The fundamental step in any community must be a test of the acuity of hearing of all children enrolled. This should be made on admission and be repeated at least once in two years, and preferably every year. Many pupils will require tests at shorter intervals, especially after absences from school occasioned by sickness likely to affect the ears. All pupils who can write to dictation are tested in groups of forty by means of the 4-A phonograph audiometer. Those under 8 years of age, the blind, and those severely deafened are tested with the 2-A audiometer. Children found by these tests to have any material hearing loss are reported to the principal of the school. She in turn, or her school nurse, notifies the parents of the condition of the child's hearing, requesting that the child be examined by the family physician or otologist. When this is not done or is impossible for financial reasons, the nurse, with the parents' consent, takes the child to the school diagnostic ear clinic. This in Minneapolis has been given space in a thoroughly modern hospital and clinical building under the management of the general hospital, but receiving as patients only school children. In this building are also housed clinics, wards, and school rooms for the undernourished, the tuberculous, and the eye, skin, heart, orthopedic and child guidance clinics. In the diagnostic ear clinic a careful ear examination is made of all children whose hearing test falls below a certain predetermined grade. The results of this examination are transmitted by the school nurse to the parents, together with the recommendation that the child requiring treatment or operation be taken to the family physician, who may treat the case himself if he is competent, or refer it to an otologist or to the otologic department of one of the existing clinics. The great objective, however, is to secure early diagnosis of existing bodily conditions causing hearing loss, and to correct such conditions in the speediest and most effective manner. To conserve most effectively the hearing of the greatest number of the population, the idea of regular systematic examinations of the ear must be extended to all educational institutions, the private as well as those supported by the public. Such examinations can be advantageously provided by all large employers of labor. This should be especially true in the operating department of railroads. The peculiar

advantages of these examinations must also soon become apparent to insurance companies as affecting all applicants for life, health or accident policies. With sufficient cooperation between the medical profession, educators and all persons interested in human welfare, a speedy awakening of sentiment may be expected which will make it the rule that every citizen will demand a thorough periodic examination of his hearing apparatus, not with the expectation always of having restored hearing loss already sustained, but to preserve his sense of hearing in as nearly perfect a condition as possible.

Carcinoma of Stomach—The present status of diagnosis and prognosis of carcinoma of the stomach is discussed by George B. Eusterman and Winfred H. Bueerman, Rochester, Minn. (*Journal A. M. A.*). They believe that the pessimistic attitude of the profession toward gastric carcinoma is, in a large measure, justified, because of unnecessary delay in diagnosis, invariable high degree of malignancy, and because, in certain types, the symptoms may be protean or the disease far advanced before it can be recognized by present available methods of diagnosis. Moreover, its primary situation may be such as to make its removal impossible, or the prognosis following radical extirpation may be dubious, even if the diagnosis has been made relatively early. Statistical proof of the insidious nature of the disease is readily available. The causes of delay in the earlier diagnosis and treatment are due to several factors: procrastination, the incomplete examination, failure on the part of the laity as well as of the physician to realize the gravity of dyspepsia having its onset in middle or late adult life, obsolete teaching and textbooks. There may be few symptoms or signs in certain of the cases, or the lesion may be well advanced before tangible symptoms occur. The symptoms are largely dependent on the site, extent, and the degree of motor impairment. Diagnostic teamwork makes earlier diagnosis and better prognosis possible. One in every four patients has an operable lesion. Carcinomatous ulcer, usually simulating benign ulcer, is more common than is generally supposed. Every gastric ulcer is potentially a carcinoma. Eight per cent of carcinomatous ulcers occur in patients under 40 years of age. Achlorhydria is present in 4.5 per cent of chronic benign gastric ulcers in patients past middle life. The necessity for diagnostic observations and laboratory examinations, or exploratory operations, is in inverse ratio to the skill of the roentgenologist. Roentgenologic criteria of inoperability are more accurate than those of operability. Intrinsic gastric lesions that simulate carcinoma are gastric syphilis, lymphosarcoma and benign tumor. Extrinsic lesions are carcinoma of the pancreas, carcinoma of the duodenum, and advanced disease of the gall bladder, or carcinoma of that organ. Of various constitutional diseases that may have symptoms like those of carcinoma, pernicious anemia is the most important. Important advances have been made in the preoperative preparation of patients and in anesthesia. Exclusive of direct extension or metastasis to other organs or tissues, the most unfavorable index to prognosis in general is perigastric lymphatic involvement. Fifty-two and five-tenths per cent of patients without lymphatic involvement were well and free from recurrence three years after operation. In the group with lymphatic involvement the percentage was reduced to 18.

The fight against illness is not physical only, but has a real moral quality as well; the reaction of a man against misfortune, which is something like the reaction of a nation at war. The religion the sick man needs is one of fortitude, self-denial, earnestness, and this can be coddled out of him by slush, and sentimentality and self-pity, which for him are the world, the flesh and the devil. To lose health is bad: but to lose moral stamina is worse. For a man to get out of hospital with legs and lungs healed, and body patched up, but moral backbone flimsy for life, is not a triumph but a tragedy.—*Canad. M. A. J.*

Now that the New York legislature is going to investigate Narcosan we may soon know all about its virtues!

- BEDSIDE MEDICINE FOR BEDSIDE DOCTORS -

An open forum for brief discussions of the workaday problems of the bedside doctor. Suggestions for subjects and discussants invited. Useful extracts from letters will be published.

DIETS MOST USEFUL IN THE TREATMENT OF VASCULAR HYPERTENSION

Lovell Langstroth*—Cases of hypertension usually fall into one of three groups: (1) hypertension without symptoms referable to it; (2) hypertension with such symptoms as headache, palpitation, throbbing of the vessels, dizziness, nervousness, indigestion, etc.; and (3) hypertension with nephritis. The dietetic treatment of the disease depends on the group into which the case falls.

In Group I, cases without symptoms referable to the circulatory condition, the hypertension is often found during examination for some other ailment. The patient is often moderately obese. His hypertension cannot be cured, but the progress of the associated degenerative changes can frequently be checked and his obesity reduced. I would give him the following diet:

Breakfast—Fresh fruit or fruit juice (citrous fruit is ideal), two eggs, coffee made largely of hot milk without cream or sugar, one slice of whole wheat bread and a small pat of butter.

Luncheon—A large salad of lettuce to which may be added: tomatoes, chopped celery or small onions, and a small portion of dressing; a large portion of fresh cooked green vegetables, a glass or two of milk, fresh fruit, cheese or nuts.

Dinner—Same as lunch with addition of meat, fish, or chicken.

Salt need not be restricted unless used to excess. The list may be supplemented with more milk, fruit, or a baked potato or two, depending on the physical activity. Exercise is desirable, but should be begun cautiously and increased gradually. In Group II, hypertension with symptoms, the patient is of the same type, but shows more advanced degenerative changes. He may usually be relieved of his symptoms. I would attempt to reduce his obesity and

relieve the circulatory burden with the following diet:

Breakfast—Fresh fruit or fruit juice, two eggs, a glass of milk.

Luncheon—Salad, fresh cooked green vegetables, fresh fruit, a glass of milk, a little cottage cheese, a few nuts, raisins, or dried figs.

Dinner—Same as luncheon with addition of a moderate helping of meat, fish, or chicken.

All food should be prepared absolutely salt-free. Every two weeks the twenty-four-hour urine should be examined quantitatively for chlorides. When the chloride figured as Na Cl reaches 1.5 grams, one-half a level teaspoon of salt may be put in a shaker each morning and added to the salt-free food during the day. Only mild exercise is permitted until the patient's reaction to it is ascertained.

In Group III, hypertension with nephritis, obesity is less constant; degenerative changes are sometimes marked and the color is often a pasty yellow. The circulatory symptoms may often be relieved. There need be no restriction of protein until the phthalein excretion is 30 per cent or less in two hours. At this point the protein intake should be reduced below 1 gram per kilo of body weight, the amount to depend on the degree of impairment. I would give a roughly quantitative diet made up to a specified number of grams of protein, fat and with a phthalein of 30 per cent this would perhaps be: protein 40, fat 100, CHO 100.

The protein is best made up of milk and eggs. Bread and sugar are allowed to make up the carbohydrate to 100 grams after giving the greatest amount of fresh fruit, vegetables and milk that can be worked in. All the food should be prepared salt-free. When the output reaches 1.5 grams a day a gram or two of salt may be added to the salt-free food. Exercise should be restricted to massage, a few resistive exercises and short walks.

George A. Gray*—The differential diagnosis between vascular hypertension and chronic nephritis

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may frequently be made by a functional test. Urinalysis in both cases closely resemble each other. The striking diagnostic difference, however, is that in vascular hypertension the maximum specific gravity is ordinarily much higher than that in nephritis. The vascular hypertension kidney, therefore, maintains its ability to concentrate as compared to the inability of a nephritic kidney. In vascular hypertension the specific gravity of the urine shows no loss in power of concentration, as is true in the case of chronic nephritis; while the presence or absence of albumin and casts is about the same in both diseases. The functional tests, therefore, show but little renal impairment in vascular hypertension. Bearing this fact in mind, then, technically we should not have to consider the ordinary food proteins in the dietary management of this type of hypertension. There are, however, two schools of thought in the treatment of vascular hypertension. First, the more established one which treats every type of hypertension as though it were merely one of various stages of hypertension that are gradations between so-called essential hypertension and that of hypertension with nephritis. This school prefers the salt-free, lacto-vegetarian régime. It considers any food that puts an extra strain on the kidneys or the vascular system in the elimination of their by-products of digestion as of almost as great importance as the specific etiological factor. The other school of thought considers that there is no definite, or very little, evidence that protein food plays an important influence on blood pressure. They base their beliefs on various experiments where protein diets of varying degrees were not able to alter the blood pressure, nonprotein nitrogen or blood ureas materially. They consider then that it is not necessary to alter the diet materially insofar as it plays a decided influence on hypertension.

Personally, however, considering that fully 50 per cent of males die of cardiovascular renal disease, I cannot help but believe that one type of hypertension may develop into the more serious variety if the strain of digestion, focal infection and environment are not reduced to a minimum. Just what the inter-relationship between these various gradations of hypertension is has not been fully established in my own mind as yet. For this reason, therefore, I believe in making the load as light as possible upon the vascular renal system, and in no way putting any extra strain upon any organ that might be damaged, knowing that it is far easier to prevent than it is to cure. In most of my hypertension cases I usually start with a low protein salt-free diet, depending upon the clinical picture and the individual's reaction to the dietary restrictions. In this way the possible toxic effects of the proteins may be overcome by restricting their intake. Needless to say, however, the treatment of hypertension is based primarily upon its etiological factors, while the regulation of diet in this condition and the rigidity of its enforcement has to meet many indications which vary in individual cases. First we must take into consideration the type and grade of hypertension and the severity of symptoms present; the personal

activities of the individual, his age, business activities, environment, and how the sameness of a routine diet will effect him individually. If too severe restrictions are going to exert too much of a hardship upon him and cause him to worry unduly concerning his health, I believe that more harm can be done by such a "too rigid dietary régime" than if no attention were paid to it.

We know, too, that many of the toxic effects of the proteins must be considered from an intestinal putrefactive standpoint. We must also remember that intestinal intoxication results from abdominal distention, and this in turn may be produced by excessive intestinal fermentation as well as putrefaction. These conditions, however, can in all ordinary cases readily be controlled by altering the intestinal flora. Suitable diets in altering the intestinal flora have in many personal cases reacted remarkably well in reducing hypertension. The diagnosis and the check on treatment in cases with this condition can readily be made by testing the reaction of the stool to litmus. A putrefactive stool ordinarily can readily be changed by the proper doses of the so-called lactic acid bacilli, with a restriction of the proteins and an increase in the carbohydrates ingested. Fermentation may be overcome by decreasing the carbohydrates, and increasing the proteins. The coarser fibrous meats, such as beef, favor putrefactive conditions because of their greater resistance to the digestive juices. This latter point is important from the fact that if one would thoroughly masticate the protein food there would be less putrefaction resulting from the improper digesting of them and in turn the proper metabolizing of these foods would lessen the strain on the vascular renal system. One may in special instances then consider that an individual who will thoroughly masticate his protein foods may be allowed proteins in his diet in normal amounts even though he is a case of vascular hypertension. Finally obesity must also be considered when present. In this condition a subcaloric diet is resorted to. We know from actual experience that a subcaloric-mixed diet is beneficial not only in reducing obesity, but in lowering hypertension. We also must remember that a subcaloric diet is very apt to produce a secondary anemia, and the patient should be watched very closely that his hemoglobin count does not drop below 85 per cent on a prolonged diet. And finally, throughout any diet one should always consider the presence of a well-balanced vitamin content.

Following is a brief outline or schedule for an ordinary day that I usually resort to as a matter of routine. It must be varied, of course, for the individual case:

Breakfast—Stewed and fresh fruits, 100 gms.; cereal, salt-free, 100 gms.; bread, salt-free, 30 gms.; milk, one glass, 100 cc.; butter, salt-free, 20 gms.; sugar, 20 gms.

Dinner—Bread, salt-free; butter, salt-free; milk, sweet or buttermilk as indicated; rice, macaroni, or baked potato; 5 or ten per cent vegetables; salads, fruit or vegetable; olive oil and vinegar dressing.

Supper—Bread, salt-free; butter, salt-free; olive oil, 15 cc.; milk, sweet or buttermilk; stewed or fresh fruits; group of 5 or 10 per cent vegetables.

John R. Frank*—In hypertension one's first consideration is to look for the cause; for, like headache, it is but a symptom of some other abnormal condition. If the fundamental cause is located and removed, then possibly no strictly regulated diet will be necessary, but in many cases a proper diet and elimination is shown to be the main factor in reducing the blood pressure. Some of the possible causes are, to merely mention them, hyperthyroidism, overindulgence in athletics, too strenuous work, constant worry and fear as in nervous conditions, the chronic infectious diseases as syphilis, focal infections, diseased kidneys, and, most common of all, dietary errors—overeating and the ingestion of relatively too large amounts of protein foods, which overwork the kidneys, weaken and disease them. Vital statistics show that more people are now dying of diseases and disorders of the metabolism than die of infectious diseases.

Some of the main facts and principles I have found useful in prescribing diets are, as follows: a healthy active person of seventy kilos weight requires daily:

| | Average Caloric Value Per Gm. | Per Cent |
|----------------------------|----------------------------------|----------|
| Protein, 120 Gms..... | 4 | 18 |
| Carbohydrate, 500 Gms..... | 4 | 75 |
| Fat, 50 Gms..... | 9 | 7 |

Multiplying the caloric value by the number of grams we see that a normal person requires about 3000 calories daily.

My dietary treatment of hypertension, in brief, consists of a limitation of the amount of food intake to about two-thirds, or to about 2000 calories, and the protein content is restricted to about one-half. To get a sufficiency of amount for filling effect I rely on the vegetables containing about 5 per cent carbohydrates. In severe cases of nephritis all protein is withheld for a few days. There is often no better diet in hypertension complicated by nephritis than a pure milk diet. The protein diet must be so arranged that the various protein foods supplement each other, furnishing the necessary aminoacids for the body's needs. The proteins of meats are almost ideal, but meats should be restricted. I give boiled meats but two or three times a week, using instead the cereal and leguminous proteins supplemented with milk and eggs. Eggs, like meat, are almost a complete protein food. A diet will become monotonous in proportion as it is an incomplete food. Thus of beans, fish, and oats we easily tire; but of milk, nature's complete food, we practically never tire. If there is edema of cardiac or nephritic origin no salt is added to the diet for a time, as salt causes and promotes edema of both cardiac and renal insufficiency.

Besides the above three classes of foods, the body requires at all times minerals and the four essential unorganized vitamins, A and D, fat soluble, and

C and D, water soluble. We get the former principally in butter, egg-yoke, and cod liver oil; and the latter in fresh fruits, vegetables and whole grain cereals. The minerals that are often lacking in the diet, but which the body requires daily, are: calcium, 1.5 grams; iron, 0.1 grams; and iodine in yet smaller amounts. Iodine may be furnished in iodized salt. The body requires 2 grams of NaCl, but we usually take 10. It has been shown by animal experimentation that practically all inorganic salts may be given orally and utilized by the body. There are only two foods that contain calcium in sufficient amounts to maintain the proper alkalinity of the blood and to protect the body from such diseases as tuberculosis. They are milk and the leafy vegetables.

Henry H. Lissner*—The diet most useful in the treatment of vascular hypertension is usually based upon the type of hypertension being dealt with. In bedside work etiology should be one of the principal factors in the determination of the type of diet to be prescribed.

Generally speaking, the usual division of hypertension with regard to type plays but an unimportant rôle in the selection of diet. Considering that hypertension without symptoms, or hypertension with symptoms, or hypertension with evidence of nephritis, are gradations of one and the same thing, it has always been my custom to look upon them with the same degree of seriousness from the standpoint of diet restrictions at the time of discovery of the hypertension, rather than to wait for the more serious symptoms to develop before limiting the protein intake. It is in this type of case discovered early that the greatest indication and benefit from preventive medicine finds its most logical outlet. Naturally the protein intake of a diet should be limited where the hypertension is due to kidney damage as evidenced in the urine, and in those individuals who have a low phthalein output; or again the protein intake should vary in individuals who have an increase in the blood nonprotein nitrogen,

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a high uric acid or other evidences of nitrogen retention.

For bedside work the two most practical indications for the regulation of the diet are the phthalein output, and the establishment of the constant specific gravity of the urine. The two most important clinical signs for its regulation are: loss of weight and progressive anemia.

In view of the above discussion it has been my practice to be rather rigid and to restrict all diets for hypertension of whatever type to as low an intake as possible of protein even to the extent of being protein-free. Look to the diet, on the first hand, to maintain the proper weight balance and prevent the overproduction of fat; and, on the other hand, proper blood balance as far as hemoglobin and the blood chemistry is concerned.

The specific diet should be worked out for each individual according to the different indications found upon clinical and laboratory examination, and the food for the individual should be drawn from the vegetables, cereals, fruits, and fruit juices, butter, buttermilk, cream cheese, and other foods of similar chemical composition. A very complete list of foods, analyzed according to their protein and carbohydrate and fat values, is to be found in Fitch's Dietotherapy, Vol I, and such a list should be consulted for the purpose of obtaining as great a variety of foods which the hypertension patient may have in order to relieve the terrible monotony which is the usual mental accompaniment of restrictive diets.

Under this régime of observation and individual outline I have seen the greatest benefit accrue rather than by following the usually prescribed diet from the textbook standpoint.

Hilmar O. Koefod *—Diet, though of distinct value, is, in my opinion, of less value in handling hypertension than well-regulated rest, physical and mental.

Inasmuch as the pathological changes causing or accompanying hypertension are progressive, it has been my plan after determining that a patient has a blood pressure that persistently stays above normal over a period of time without obvious removable cause, to put him on a strict dietary régime and keep him on it. This is always done in conjunction with a régime regulating physical and often mental activities. In the majority of patients whether or not renal involvement can be demonstrated, meat, fish, clear soups and condiments, alcohol and often eggs are cut out of the diet; salt is restricted to the amount used in cooking unless edema is present when it is removed as far as possible. Milk is used to furnish the bulk of the protein requirement, which means that it is taken with each meal besides other milk products as junket, cottage and other

forms of cheese, ice cream, etc. The remainder of the diet is made up of cereals, sugar, cream, creamed soups without stock, bread, butter (preferably unsalted), vegetables, fruits (fresh and cooked), fruit juices, tapioca, macaroni, and rice.

In a good many cases I have used Sansum's basic diet, which is much as above except that all wheat products, oatmeal, rice, and some of the fruits and vegetables, as cranberries and prunes are omitted. The bread used in this diet is made from soy bean flour. The diet is a satisfactory one in many ways. While the acid end products may not be an important factor in causing or aggravating hypertension, the large amount of vegetables, fruit and fruit juices given, make it refreshing and excellent for constipation, which is often present. The daily laxatives, so often given to increase elimination, I think are frequently a source of irritation of the intestinal tract with accompanying gas and abdominal discomfort which tend to defeat our purpose. This habit I have often stopped in spite of fear and trembling of the patient, regulating the constipation by diet even when the blood pressure was very high. I have not observed that this has had any untoward effect on the blood pressure readings, in fact it is frequently of distinct benefit.

The basic diet too, because of the elimination of wheat products, can easily be used for reducing cases of hypertension with obesity.

Fluids have been limited to 1500 cc. except in cases with edema, which are put on a Karell diet.

F. F. Gundrum *—From a clinical standpoint hypertension cases may conveniently be divided into:

1. Those who have definite renal insufficiency as evidenced by one or more of the renal function tests.
2. Those whose kidneys are sufficient.

In the first group dietary management consists in so regulating the protein intake as to minimize the load upon the damaged kidneys and at the same time to prevent, as far as may be, the development of anemia.

In the second group, particularly where patients are overweight, the chief object to be accomplished is the reduction of the total intake of food. Minute prescription of the quantities of the different food-stuffs is of little value compared to the labor involved. The chief satisfactory results I have been able to get by dieting patients with high blood pressure have been in the group of overweight indi-

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* **Frederick F. Gundrum** (400 Capital National Bank Building, Sacramento, California). M.D. Johns Hopkins, 1908; A.B. Stanford, 1903. **Graduate study:** Intern Johns Hopkins, 1908-09; resident St. Francis Hospital, Pittsburgh, Pa.; instructor anatomy, University of Pittsburgh, 1909-10; visiting physician, Sacramento Hospital, 1910-19. **Previous honors:** Chairman Medical Advisory Board No. 7 during war. **Present hospital connections:** Visiting staff, Sutter Hospital; consultant, Sacramento (County) Hospital. **Scientific organizations:** Sacramento County Medical Society (past secretary and president), C. M. A. (chairman Medical Section, 1923), Fellow A. M. A., Calif. Acad. of Med., Royal Inst. Pub. Health (London), Am. Pub. Health Assn., A. A. A. S., San Francisco Acad. of Science, A. C. P. **Present appointments:** Vice-President California State Board of Health, 1915 to date. **Practice** limited to Medicine since 1910. **Publications:** "Acute Poliomyelitis in California," J. A. M. A., January 27, 1912; "Use of Sera in Med. Hemorrhage," California State J. Med., October, 1913; "Skin Test in Typhoid," California State J. Med., February, 1915; "Intestinal Infection in Sacramento Valley," California State J. Med., May, 1917; "Rat-Bite Fever," California State J. Med., January, 1918; "Triple Empyema," Ann. Med., November, 1920, etc.

viduals without kidney damage. Here the blood pressure curve often subsides, quite notably, parallel to the weight curve.

C. H. Denman *—The value of diet in vascular hypertension as in any other abnormal physical condition is primarily a matter of individualization. That which would benefit Peter might injure Paul. Hence each case of hypertension must be considered by itself and the diet determined according to the etiological factors and individual characteristics.

Is it not a fact that persons with high tension are more frequent among the intemperate? Intemperance here means overindulgence in high protein foods, rapid and irregular eating, slothfulness of body, and the use of liquors other than pure water. Alcoholic indulgence even in moderate degree and the excessive use of tobacco are, in my opinion, contributing factors in many instances. On the other hand excessive dietetic restrictions lower blood pressure mainly by starving the patient and weakening the entire muscular system. I would give as the golden rules for diet in vascular hypertension the following:

1. Select that diet best adapted to overcoming the cause of the hypertension.
2. In most persons such diet will be a nourishing mixed one free from excesses in any direction.
3. Have the food properly prepared with but little salt or seasoning.
4. Eat slowly at regular hours.
5. Total abstinence from alcoholic beverages and from excessive smoking.
6. Drink an abundance of pure water; at least 1500 cc. in twenty-four hours.
7. Coffee, tea and soft drinks should be limited according to their effects on the digestive and nervous system.

In advanced cases of nephritis, overweight, or heart disease patients, an exclusive milk diet such as that recommended by Karells may be advisable. In other individuals a strictly salt-free diet may reduce blood pressure, but this lowering must be watched, for in most patients there is a point below which disagreeable symptoms result.

For a salt-free diet instructions to the patient are: All vegetables should be soaked in a first water, this drawn off and the vegetables boiled in a second water (this removes the natural salts). All meats are similarly treated, boiled first, and then prepared in any form desired. Unsalted butter or olive oil may be used in cooking meats; garlic, onions, mustard may be added to help cover the flat taste. Any fresh-water fish boiled or fried may be taken, but avoid salt-water fish. No preserved meats, smoked meats, canned fish, sardines, ham, bacon or sau-

sage. No pies, pastry, hot-cakes, or eggs in any form. Use unsalted butter and salt-free bread if possible. Home-made unsalted bread several days old is the best.

Preserved or fresh fruit is allowed as follows: Pineapple, strawberries, apricots, plums, prunes, peaches, and apples, named in order of preference. Of the grain foods barley is preferred. Duck and veal may be eaten without special preparation. Good salt-free bread is obtainable in most urban communities. Water crackers may be eaten freely. No milk is allowed the patient, but cream, plain or diluted with water, may be used. Pastry cream with strawberries or pineapple make a pleasant desert. Cottage cheese made without salt is good. The entire liquid intake should not exceed two pints in the twenty-four hours.

W. W. Crawford *—Ophüls suggests that hypertension is the symptom of an intoxication the nature of which we do not quite understand. There can be hypertension without any explanation whatever, but there is a higher percentage of high blood pressure based on arterial disease than arterial disease based on high blood pressure.

I believe great benefit may be gained in properly selected cases of hypertension by sharp limitation of the intake of sodium chloride; it certainly is of value in general arteriosclerosis. In general, writers on this subject agree on limitation of salt and proteid in the treatment of edema, although there is some disagreement regarding the diet in vascular hypertension. However, lowering of blood pressure is the rule in the majority of patients so handled.

In my opinion, diets most useful and practical in the treatment of vascular hypertension depend a great deal on the faithfulness of the patient as well as the efficiency of the treatment. Bearing this in mind it is imperative, as far as possible, to make out diet lists attractive and palatable, as the appearance and odor of certain foods may defeat its own purpose.

For this reason it would be very difficult to create better diets for this disease than those presented by Doctor Langstroth in his paper on "Diets Most Useful in the Treatment of Vascular Hypertension"; also the classical diet by Sansum of Santa Barbara in 1923 and published by him in the *Journal of the A. M. A.*, both of them being invaluable to bedside physicians.

"I am convinced that we have gone about far enough in the direction of free treatment. We should be careful how we give to any citizens, for any reasons, under any circumstances, blank checks by which they may draw upon the resources of the community. The primary responsibility for illness and the costs of illness should lie upon the individual. For this there are many reasons. Sickness is as often a fault as poverty is. If every man who has lost his health by carelessness or slackness or shiftlessness is to be a privileged public charge as long as he wants to be, why not the man who has carelessly or shiftlessly lost his money.—*Canad. M. A. J.*

The most astonishing thing about evolution is the long way it has yet to go.—Publishers' Syndicate.

* William W. Crawford (400 Electric Building, San Diego). M. D. University of Colorado, 1911. Scientific organizations: San Diego County Medical Society, C. M. A., A. M. A. Practice: General.

* C. H. Denman (2428 Bancroft Way, Berkeley). M. D. Princeton, 1891, Hahnemann College, 1893; M. A. Princeton, 1893. Graduate study: Children's Homeopathic Hospital, Philadelphia, 1893-94; Philadelphia Polyclinic, 1900. Previous honors: Medical Missionary Service in Siam, 1894-1907; surgeon to Siamese Gendarmerie, 1904-06. Scientific organizations: Alameda County Medical Society, C. M. A., A. M. A., American Institute of Homeopathy, California State Homeopathic Medical Society, Pacific Physiotherapy Association, president Berkeley Board of Education. Practice limited to Medicine since 1924. Publications: A few magazine articles.

EDITORIALS

IN THE LEGISLATIVE HOPPER

The present session of the California Legislature has before it the usual number of bills purporting to promote the prevention and cure of diseases.

Some of these laws have been prepared after careful study by those whose business it is to serve the causes of legitimate medicine and health, while others are designed to advance the welfare of selfish interests. There are the usual "jokers" hidden away in otherwise harmless-looking bills and there doubtless will be others—probably some of the most dangerous—included in some of the bills yet to be introduced and in those "skeleton" bills already on the calendar.

MODIFICATIONS OF THE MEDICAL PRACTICE ACT

Senate Bill 73 (Senator Young) approved by the Board of Medical Examiners and the Board of Osteopathic Examiners effects the following:

1. Strikes out the proviso (1921 amendment) provided for review by the courts which has been declared unconstitutional. (*Millsap vs. Alderson et al.*).

2. Divides subdivision 6 and adds 6a designed to prohibit the ambulatory treatment of narcotic addicts.

3. Adds section 11a at the request of the Osteopathic Board, penalizing those licentiates who use the suffix M. D. unless the degree has been earned after a course pursued in an approved medical college. This was found necessary in order to have a basis on which to call before the board at least one individual under the jurisdiction of the Osteopathic Board who is reported to have arrived in St. Louis, Missouri, at 10 a. m. and departed at 4 p. m. of the same day with the degree of doctor of medicine issued by the St. Louis College of Physicians and Surgeons.

4. Adds subdivision 11b at the request of the Osteopathic Board to penalize a licentiate who uses the suffix D. O. unless he has completed a course of instruction in an approved osteopathic college and has been granted the degree doctor of osteopathy.

Senate Bill 271 (Senator Crowley) amends section 2 by reducing the annual registration fee to \$1. The osteopathic initiative makes it necessary to exempt said law from this amendment.

Senate Bill 308 (Senator Crowley) amends section 11 and was introduced by the Board of Medical Examiners following a conference with representatives of the three medical schools in this state. (a) Changes the subjects for physicians' and surgeons' examination. (b) Makes some change in the subject of examination for drugless practitioner. (c) Changes subjects of examination for advance from drugless practitioner to physician and surgeon. (d) Exemption clause for osteopathic initiative.

Senate Bill 310 (Senator Crowley) creates section 11a to provide for the recognition of the diploma

of the National Board of Medical Examiners; also exempts osteopathic initiative.

Senate Bill 311 (Senator Crowley) amends section 24, granting the counties 65 per cent and the board 35 per cent of fines collected for violation of the Medical Practice Act. It is believed that this will arouse greater activity in law enforcement, some county officials reporting indifference to enforcement, owing to the cost and the small amount that counties receive from any fine imposed.

Senate Bill 582 (Senator Crowley) introduced by the Board of Medical Examiners is a diploma-mill bill and is similar to Assembly Bill 511, which passed both houses in the 1925 session but was not favored by the Governor. If this measure becomes a law it will put a stop to fraudulent diplomas, forgery of credentials, impersonation of licentiates, and other fraudulent proceedings in attempting to gain a certificate to practice in California.

Assembly Bill 178 (Mr. Woolwine) amends section 13, introduced by the osteopathic representatives, and provides for an oral examination (similar to that provided in section 12½) for those coming from other states and granted reciprocity certificates to practice osteopathy. Hereafter such individuals, after successfully passing an oral examination, may obtain a physicians' and surgeons' certificate.

This bill if passed would still further lower and confuse the already complicated legal machinery for licensing and regulating those authorized to serve the sick in California. It ought to be defeated.

Assembly Bill 315 (Mr. Cloudsley) introduced by the osteopathic board, amends section 24 and provides a means whereby they may collect fines imposed for violation of the osteopathic initiative. The attorney-general has ruled that under the existing law the Osteopathic Board has no authority to collect fines, but that such fines must be deposited to the credit of the Board of Medical Examiners although prosecution has been made by the Board of Osteopathic Examiners.

Assembly Bill 621 (Mr. Jacobson) introduced by the State Association of Chiropodists to raise their education requirements to a two-year course, amends sections 9 and 10 of the medical act. The bill increases the hours of instruction required in the study of chiropody, among which is found electrotherapy.

There is no good reason apparent that additional education would be harmful to chiropodists, but the wisdom of adding *physical diagnosis* and *electrotherapy* to their courses of study may well be questioned. In its end result such legislation promotes such often sloganized objectives, as "the eye for the optometrists," "the foot for the chiropodists," "the skin (or at least that part of it above the waist line) for the cosmetologists," "the hair for the cosmeticians," etc., etc.

CREATING MORE HEALERS

Senate Bill 61 (Senator Crowley) is an "Act concerning cosmetology"—and what an Act! It creates another board to regulate, license, discipline and what-not all people who engage in "arranging, dressing, curling, waving, cleansing, cutting, singe-

ing, bleaching, tinting, coloring, or similar work, the hair of any person with hands, or with mechanical or electrical appliances *or by any means*; massaging, cleansing or stimulating the scalp, face, neck, arms, bust, or upper part of the human body, by the use of cosmetic preparations, *antiseptics, tonics, lotions or creams*; . . . removing superfluous hair from the body of any person *by the use of electrolysis*," etc., etc.

Electrologists are created and may practice this medical specialty only under control of this board of beauty specialists. In order that the "electrologists" and some of the other forms of "medical practitioners" may be improved, it is provided that schools of "cosmetology" shall have a "regularly licensed physician" on their faculties, etc., etc.

In other words, this long and complicated bill is the first step in creating another group of "sub-doctors." One examines the bill in vain for some constructive point calculated to reduce the poisoning, often fatal, now emanating from beauty shops, by the use of *antiseptics, poisons, electricity*, and other dangerous agents by those unskilled in their knowledge, use or dangers. The only thing one finds is a proposal to legalize these incompetents to continue their dangerous, and not infrequently fatal, practices.

Of course physicians, as such, are not more concerned with the fate of this bill than are other citizens, but we would be negligent of our duty did we not warn the public and the legislature of the dangers inherent in legislation of this character.

Senate Bill 717, by Senator Sharkey (Committee on Education) illustrates political trends in control of the practice of medicine.

It places the *health supervision* of school children in the hands of local Boards of Education. They are to carry on this important plan of the practice of medicine, through "physical inspectors" who may be *physicians, teachers, nurses, oculists, dentists, optometrists*, or any one or more of said persons, provided all the "physical inspectors may be chosen from *any one* of the above classes." Another interesting joker is that to be eligible to practice medicine among the school children, any doctor must also have "*a health and development certificate*." Before nurses, teachers, optometrists, etc., may practice pediatrics for local school boards, they also, among other attainments, must hold a "health and development" certificate. These certificates may be issued, among others, to licensed physicians and surgeons who are able to convince county Boards of Education that they have "special fitness and training" for practice among school children. Apparently with the sole purpose of re-emphasis, the last paragraph of this amazing bill says: "No physician . . . shall be employed or *permitted* to supervise the health of pupils under this *or any other provision of law*" unless he holds "a health and development certificate from the Board of Education."

This amazing document not only in effect constitutes an amendment to the Medical Practice Act, but it authorizes persons to practice medicine among school children who are not otherwise authorized or licensed to diagnose or treat human beings.

CURING CRIPPLED CHILDREN BY LEGISLATION

One of the strongest, most universal and surest appeals to human sympathy is aroused by crippled children. That every one of them should have all possible opportunities for cure or improvement that medical science can give is obvious, but that reason and intelligence rather than emotionalism and politics should guide our efforts in this direction is equally obvious.

In no phase of medical development has greater progress been made during recent years than in the curative treatment made possible for these unfortunates, and the application of these methods is already extensive and growing rapidly in many directions.

* * *

There are in California now ample facilities to handle the problem if they are only utilized; and to make them available to all who need them only requires sufficient money.

All that the state needs to do if it wants to be really helpful rather than paternalistic is to provide sufficient funds to pay the heavy costs of the prolonged treatment of those who are unable to pay for it, and to provide for the intelligent expenditure of those funds where and under such conditions as the state's medical department (State Board of Health) shall approve.

* * *

There are now pending before the legislature (Committee on Public Charities and Corrections) Assembly Bill No. 185, introduced by Mr. Coombs; a companion Senate Bill No. 632 (Committee on Governmental Efficiency) introduced by Senator Inman; Assembly Bill No. 438 (Committee on Public Charities and Corrections) and several auxiliary supporting bills, all of which propose to make not only all crippled children, but all "*physically defective or handicapped persons under the age of 21 years*," wards of the state under direction of the non-medical State Welfare Commission.

Assembly Bill 185 and Senate Bill No. 632 provide first that the nonmedical State Welfare Commission shall cause the registration of "all physically defective or handicapped persons under the age of 21 years" and this registration shall include among other facts the "*nature of the defect*." In order that the nature of the "defect" may be determined accurately this nonmedical state bureau shall "*have the power to conduct local diagnostic clinics*"; "*it shall be its duty to furnish* (for the citizens under 21 years who in its judgment are otherwise unable to obtain them) *such surgical, medical, hospital and special treatment* as shall, in the "judgment" of this nonmedical board "be necessary or desirable." To aid them in the practice of this difficult medical specialty, the Welfare Board may, under specified conditions and at its discretion, use government or private hospitals or "homes." The board may also "contract" for the services of "professional and business persons, firms and corporations." These bills provide for the employment of an "assistant secretary," qualified in "work for physically handicapped and with a working knowledge of public health service" and such other employees as the Welfare Board may deem necessary for the carrying out of

the provisions of the law. An initial appropriation of \$105,000 is asked.

Senate Bill 342 deals with the responsibilities of counties in this proposal to put the state further into the practice of medicine by unlicensed persons than it now is. It goes a step further by making it the duty of every physician (among others) to report "at once to the superintendent of schools" any minor whose hearing is impaired and makes failure "to report the name, age and residence of any minor with impaired hearing immediately" . . . "a misdemeanor." There is no definition in the bill of "impaired hearing" or of "immediately." Does the state pay for the letter and report and postage? Why not let school teachers do this, without a probably unconstitutional law, creating another new (!) misdemeanor.

* * *

Who are included among "*all physically defective or handicapped persons under the age of 21 years*" that these bills propose to add to the medical wards of the state? The bills do not specify but leave the inference that they are those who are so diagnosed by the State Welfare Board.

Without further definition, an honest, intelligent interpretation of the law would include an amazingly large percentage of all citizens under 21 now under medical care and many thousands who are not. Among others it would of course include a considerable proportion of those with tuberculosis, which, under another pending bill, is included among the diseases covered by the Industrial Accident Compensation laws of the state.

Minors who are temporarily or permanently "defective or handicapped" because of physical shortcomings, accidents or disease past or present, like other citizens needing medical attention are of two fundamental classes: (1) those whose economic condition permits of their securing and paying for such service as their parents or guardians care to obtain and (2) those unable to secure service from available sources.

Needless to say, both classes are entitled to and should have the best care available. There is plenty of such skilled service to serve all who need it in California and to make it available alike to all it is only necessary for government to bear the cost when necessary, including transportation for those unable to pay for it. This, the government started to do some years ago by making a special appropriation to the University of California Hospital for the purpose. Why not increase this appropriation and, if need be, extend it to other existing medical centers prepared to serve orthopedic conditions?

* * *

If another "survey" is needed, let the state have it made by a competent medical agency and give to that agency—its own medical department or State Board of Health—what additional authority it needs, if any, in the assignment and care of those who by reason of economic insolvency have a just claim on society.

The Board of Education already has ample authority to render the auxiliary service of education to crippled children and for the state to go further and place the practice of orthopedics—a difficult

medical specialty—under the control of a non-medical board with funds to create and operate clinics and "contract with hospitals, professionals and corporations" is without justification; would constitute a precedent calculated to discourage or destroy progress already made; would be illegal under existing law, dangerous and wholly unnecessary.

CURRENT THEORIES OF CARDIAC OUTPUT AND THE ALLEGED SEDATIVE ACTION OF DIGITALIS ON THE HEART

At a time when much work is being done on the more accurate estimation of cardiac output in man and experimental animals under a variety of conditions, it is desirable to scrutinize the meaning of cardiac output and how the latter may be influenced by drug action. Cardiac output is by no means synonymous with cardiac work, for the latter depends on the pressure against which each unit of blood is expelled and on the efficiency of the heart muscle. Neither of these latter factors has been adequately computed although they are probably of greater importance than either arterial pressure or cardiac output. It is also worth remembering that there are definite sources of error in the best methods of measuring blood flow in man, and that while these methods have yielded some accurate data they have not in any way revolutionized the facts on which theories of heart failure rest. Many of the current theories based on blood flow observations are invalidated by disregard of simultaneous changes in blood pressure, and some of them are based on methods of guessing blood flow no more accurate than the old pulse rate times pulse pressure formula. The method of calculating flow through the heart by studying blood gases in the arm and oxygen consumption is one of the fallacious methods, as was pointed out by Grant,¹ who first used it, although later workers seem to have overlooked his advice.

Some other theories are based on accurate methods, but incomplete evidence, and, therefore, are not convincing. The results are usually obtained on dogs in which either the size of the heart or blood flow is studied, but not the two simultaneously as should obviously be done. On the basis of such incomplete evidence it has been urged that the heart puts itself in harmony with increased flow through it by dilatation and hypertrophy. However, mere inspection of the normal heart and knowledge of the normal pulmonary and aortic pressures suffice to indicate that ventricular thickness is related to blood pressure more than to blood flow. Moreover, it has been adequately demonstrated that a decrease in heart size occurs during the greatly increased blood flow of strenuous exercise, and an increase in size on giving drugs which elevate blood pressure, including those, such as pituitary extract, which reduce flow. Therefore, it seems well established that blood pressure, far more than blood flow, determines cardiac hypertrophy and dilatation. Unfortunately for therapeutic studies, however, simple facts and logical deductions may not always be found together, including those on cardiac output.

From work on unanesthetized dogs injected with

1. Grant: Arch. Int. Med., 1923, 32:769.

a product purported to be derived from digitalis, Harrison and coworkers² of the Vanderbilt University Department of Medicine claim a decrease in cardiac output, from which they make the deduction that digitalis is a cardiac sedative and should not be used in circulatory failure due to shock toxins. These authors infer that shock in experimental animals accounts for the increased cardiac output under digitalis observed by Cushny, Tigerstedt and others. In their sweeping deductions, which would contravene the well known and accepted clinical actions of this drug, the Vanderbilt investigators do not consider blood pressure changes, which they have neglected in their experiments, nor the well-known difference in digitalis response of dogs and human subjects, namely, that the increase in blood pressure in dogs does not occur in man. It is obvious that a drug which increases myocardial irritability is not a sedative, whether it decreases cardiac output or not. In dogs the blood pressure change (increase) alone will account for any diminished blood flow, and it is to be assumed that any drug which increases blood pressure will diminish cardiac output. It seems clear that in this work a rather free, though unwarranted, assumption has been made, namely, that results from dogs are directly transferable to man. What is not so clear, and even more regrettable, is why an official preparation of digitalis, or some well known and understood digitaloid product, was not used in this study. Instead, however, a secret, and to the Council on Pharmacy and Chemistry unacceptable, product³ was used. Clearly, therefore, criticisms of thoroughly established work with digitalis based on results with such a product without controls of its action and comparisons with well-known digitaloids are misleading and will not be readily accepted.

One may be ready to admit that certain types of circulatory disease and heart failure may present an increased cardiac output, even in extremis, just as in certain cases a high arterial pressure may be maintained till death, and that in some cases digitalis may decrease the blood flow, as in other cases it may diminish blood pressure. However, the importance and logic of the situation demand more than mere mention of possibilities. It is to be hoped that investigators of these fundamental questions will consider blood pressure, among other things, along with cardiac output, and, in observing drug action, will use recognized rather than proprietary and unaccepted products.

SCIOSOPHISTS AT THE LEGISLATURE

The president of the Santa Barbara branch of the American Association for Medical Progress, Inc. (see page 388), as well as a number of other organizations and individuals, are deeply concerned lest the legislature now in session may follow the lead of Tennessee and pass an anti-evolution law in California.

There is no doubt but that sciosophists are doing all they can in that direction, and they have suc-

ceeded in getting their bill introduced in the assembly.

It is difficult to get excited over proposed legislation of this character because we believe the legislators of California are too intelligent to see more than a little humor in the situation; and if by chance they should pass such a law, we feel confident that Governor Young, who is also chairman of the Regents of the great State University, would veto it.

After all, Mohammed had to go to the mountain, and sciosophists of the anti-biological science type will have to go to their mountain or they will disappear with the rising tide of public enlightenment. Biological laws are no more susceptible to man's ordinances than an elephant's hoof to the bite of mosquitos.

It is said that never before was there such interest in biology, including the laws of evolution, as there is today among the youth of Tennessee. There are more boys studying evolution than there are learning to smoke corntassel cigarettes in the alleys out behind the barn. The younger ones think such study a lark, while those more mature realize that without a fundamental knowledge of biology they may not travel far along the road of education in Tennessee or elsewhere.

Our legislators lead tense, strenuous lives during the session. By all means let them have a little fun. Most of them are educated, intelligent citizens, and our First Citizen sitting downstairs in the Capitol is a graduate from, and now presiding officer over the destinies of, a great university.

The Council on Physical Therapy of the American Medical Association (*Journal A. M. A.*, July 22, 1927), on the basis of the present available evidence, is convinced that the sale of generators of ultraviolet energy to the public for self-treatment is without justification. The Council bases its condemnation of the sale of such apparatus for this purpose on the following grounds:

1. The uninformed public could not take the proper precautions in administering treatments and, as a result, severe general burns or grave injury to the eyes might ensue.
2. Those not familiar with the possibilities of such apparatus would be led to place unwarranted confidence in the therapeutic value of such treatment by the claims that might be made in the literature advertising such generators, and to undertake to treat serious conditions not amenable to such treatment.
3. The unrestricted possession of such therapeutic means would tend to deprive people of expert diagnosis by encouraging them to make self-diagnoses.
4. Such practice would encourage the sale of useless and fraudulent lamps which would be advertised as generators of ultraviolet rays, since the public would have no means at its disposal to determine the quality or quantity of the radiant energy emitted by such lamps.

For the foregoing reasons, the Council on Physical Therapy considers as detrimental to public welfare the sale or the advertising for sale, directly to

2. Harrison and Leonard: *J. Clin. Investigation*, 1926, 3:1; Harrison and Blalock: *J. A. M. A.*, 1926, 87:1984.

3. Digifolin, New and Non-Official Remedies, 1926, p. 403.

the public, of a generator of ultraviolet energy. Under rule 11 of its Official Rules, the Council will declare inadmissible for inclusion in its list of accepted devices for physical therapy apparatus manufactured by a firm whose policy is in this matter detrimental to public welfare.

There comes a time in the career of almost every physician when he has a desire to communicate his experiences in the practice of medicine to his colleagues. It may be the report of a single case or it may be the publication of an epoch-making discovery, but the success he attains in conveying his message to others in a written paper will depend largely, if not entirely, on how it is presented. He may have been a very successful physician who has read widely, but when it comes to conveying his own thoughts to others through the printed page he may find it extraordinarily difficult.

The reviewer of current medical literature is thoroughly cognizant of the fact that much valuable information is entirely lost annually in the vast number of papers published, because the authors fail to assist the reader in arriving at the true meaning quickly and easily with the least amount of mental effort. The busy reader usually prefers to pass on to the more readable paper. The author's style did not command the respect, interest and attention that it may have otherwise received. It is, therefore, not difficult to understand that badly arranged and poorly planned papers rarely secure more than a brief glance from the reader and editor, regardless of their merit and the information the contribution may contain.—*Internat. Med. Digest.*

The doctor who succeeds in private practice today will do so for precisely the same reasons that the proverbial old time family doctor succeeded. There are a few basic principles of success—some inherited and others acquired.

Doctor Francis Graham Crookshank (*Forum*, February) discusses one of the most important and the one most frequently overlooked. "Cases" are as cold-blooded and impersonal as a forge in a Ford factory, disease is little better.

It is patients, persons, individuals (not cases nor diseases) who require service, and any physician who forgets or ignores the fact is doomed to failure. True, some such do make money, but they never become physicians.

The plea that successful busy practitioners with limited time and special skill cannot afford to care for those in moderate circumstances sounds reasonable. But such doctors can do much in the way of extending their skill to the care of this class of patients by using the younger men in the profession ostensibly to look after detail, but in reality to do the work. By so doing they discharge a threefold duty.

First: They assist materially in aiding the younger men to gain the confidence of the laity earlier than they would otherwise.

Second: They do not enrich the harvest field of the quack and cultist with patients who should go to our younger men.

Third: They do not drive to free clinics people of moderate means, who are able and desire to pay what they can.—S. D. Van Meter, *Colorado Med.*

MEDICINE TODAY

Current comment on medical progress, reviews of selected books and periodic literature, by contributing editors

The Editor: Judged by responses from contributors and readers, "Medicine Today" fills a need, and one that is being met with astonishing effectiveness.

In order that the obvious purposes of the department may continue to be best carried forward, contributing editors should bear in mind that *clarity and brevity* are the essence of good writing of this character. Editorials, comments, résumés and reviews, of less than 500 words, are the most valuable, and those of over 750 cannot be used. Brevity and clarity are easily possible by sufficient limitation of the subject and by writing, rewriting, condensing, revising, polishing and repolishing, until not only does the editorial as a whole carry a definite message, but until each sentence means something worth while.

Copy for each issue must be in our hands by the tenth of the month preceding publication.

Anesthesiology

THE increased interest in and use of local anesthesia in major surgery was stressed at the Congress of Anesthetists, which convened with the British Medical Association at their annual meeting at Nottingham in July, 1926. At the joint meeting of the Section on Anesthesia with the Surgical Section, Professor Finsterer of Vienna, who demonstrated his methods in San Francisco a couple of years ago, reported 807 abdominal sections under splanchnic anesthesia without a death. He emphasized the dangers of ether and deplored the impossibility of using gas in his clinic because of cost and the lack of qualified administrators. He strongly advocated "combined anesthesia," i. e. local and nitrous oxide and oxygen, in those cases where local alone proves inadequate.

Anesthesia in relation to cardiovascular affections was the subject of a paper by F. W. Price of London and the discussion by Blomfield, author of a new treatise on anesthesia, and Ernest Von der Porten of Hamburg was of much interest.

The president-elect of the British Medical Association, Sir Robert Philip of Edinburgh, where the next annual meeting is to be held in celebration of the centenary of Lister, emphasized the rôle of the anesthetist as the "physician of the surgical team."

The meetings of the Scottish Anesthetists in Glasgow and Edinburgh and those in Nottingham with the British Medical Association have been reported at length in the *Journal of the British Medical Association*, the *Lancet*, and the *British Journal of Anesthesia*.

Professor Haldane presented a paper on the "Physiology of Respiration" to the Anesthetic Section of the Royal Society of Medicine, London, which is published in the October number of the *Proceedings of the Royal Society of Medicine*. Anesthetists will find much of value in this paper on the respiratory problems of anesthesia.

The clinics arranged for the visiting anesthetists at the Glasgow Royal Infirmary, the University of Edinburgh, Bartholomew's, Guy's, Middlesex and the Royal Dental Infirmary, London, impressed them with the skill and training along physiological and pharmacological lines of the British anesthetists.

A unique method of anesthesia in upper abdominal surgery was described and demonstrated by C. Langton Hewer of London. The trachea is catheterized by direct vision with a laryngoscope under ether, and anesthesia maintained with nitrous oxide, oxygen and ether. By increasing the proportion and pressure of oxygen, the respiratory movements can be brought down to practically zero as the blood is sufficiently oxygenated, thus obtaining an immobile field for the surgeon's manipulations.

The deep degree of anesthesia necessary to obtain the so-called "slack abdomen" required by British surgeons is responsible for the adherence to chloroform in many cases and also accounts for the absence of technician anesthetists. This also explains the practice of omitting morphin in the preoperative medication and the use of large doses of atropin. The preference for chloroform is declining, however, and the value of carbon dioxide for respiratory stimulation and deetherization is well recognized. Nitrous oxide and oxygen is gaining ground rapidly and much interest was shown in the demonstration of his gas and oxygen apparatus by McKesson.

The method of having but one or two papers with full and free discussion, which obtains at the British meetings, was noteworthy.

The Associated Anesthetists of the United States and Canada carried home many memories of the high professional attainments, as well as the cordial hospitality of their hosts, and are looking forward to the next congress with the British Medical Society, which is to take place in Winnipeg in 1930.

The development of the various methods of local and regional anesthesia offers the hope of solving one of the problems of the specialty of anesthesiology. If a large percentage of the operations which at present require general anesthesia may be properly done with the use of local, the need for the great numbers of anesthetists, which are necessary at present, will be obviated and a higher type of anesthetist will be produced.

MARY E. BOTSFORD.

Communicable Diseases

THE Rôle of Toxins in Certain Infectious Diseases—It is incredible that almost twenty years elapsed between the first reports of Savchenko's¹ toxin and antitoxin for the scarlet fever streptococcus and the more recent work of Dochez² and later the Dicks,³ who were able to confirm the pioneer investigations and put their own discoveries to a practical test. Today, aside from a number of unexplained inconsistencies of a bacteriological and immunological nature, the rationale of scarlet fever toxin and antitoxin is probably established.

The impetus given to similar investigations by such work has put experimenters on the trail of a toxin for the streptococci found in measles. The studies by Hektoen's associates,⁴ reported from Chi-

cago during the past year, bid fair to settle an old controversy if the work should be confirmed. The clinical manifestation of the exanthemata should have suggested ere this the probable rôle of toxins in these diseases.

More surprising than the unaccountable mental and experimental lag regarding scarlet fever, measles, and related infections, is the absence of fundamental investigations concerning the part which toxins seem to play in acute rheumatic fever and particularly in subacute bacterial endocarditis. Granted that the bacteriology and immunology in these diseases are not yet on an established basis, due to difficulties in technique and in classification of the strains of organisms, none the less, studies with Berkfeld filtrates of some of the streptococci may yield important and surprising data. There are cogent reasons for suspecting a bacterial toxemia in subacute endocarditis. Not the least of these is the localization of the organisms in certain parts of the body while appearing in relatively small numbers in the circulating blood and producing a toxemia out of all proportion to their number found during life or after death. In this regard the conditions do not differ essentially from those in other infectious diseases caused by toxin-producing bacteria. While a most recent report by Small⁵ on the etiology of rheumatic fever lacks certain necessary controls to make the study convincing, it does suggest forcibly the need for further work along the lines of bacterial toxins in this disease.

Finally, one is led back over the old and well-beaten trail of tuberculosis. Here too it is astonishing that the rôle of toxins as the most important aspect of the clinical findings has been utterly disregarded until within recent months. As early as 1903 Denys⁶ described laboratory and clinical experiments with a Berkfeld filtrate of bouillon cultures of tubercle bacilli. It is important to recall that this substance had not been altered by him either physically or chemically and could be readily destroyed by heating. Here we have the germ, so to speak, of a toxin! So engrossed was Denys with the therapeutic possibilities of his "B. F." (bouillon filtré) that he failed to devise experiments necessary to establish fundamental principles upon which the identification of a toxin must be based. So, too, Spengler⁷ missed an opportunity in his researches on a bouillon filtrate. Recently, however, clinical and laboratory investigations⁸ reported from the University of California appear to have thrown new light on the fundamental mechanism of toxin production by the tubercle bacillus and the rôle of such toxins in the diagnosis and possible therapeutics of the disease. These researches, furthermore, have offered decisive evidence that the tuberculin substance is entirely different from and bears no relation to the toxin element.

The old is ever new and the new ever old in the field of medical discovery.

FREDERICK EBERSON.

1. Savchenko, I. G.: Russk. Vrach. St. Petersburg, 1905, 4, 797.

2. Dochez, A. R., et al.: J. A. M. A., 1924, 82, 542; J. Exper. Med., 1924, 40, 253; *ibid.*, 493.

3. Dick, G. F., and G. H.: J. A. M. A., 1924, 82, 265; 84, 803.

4. Tunncliffe, R., et al.: J. A. M. A., 1926, 87, 846; *ibid.*, 2139.

5. Small, J. C.: Am. J. M. Sc., 1927, 173, 101.

6. Denys, J.: Le Bouillon Filtré, Paris and Louvain, 1905.

7. Spengler, C.: Zeitschr. f. Hyg. u. Infektionskrankh. 1897, 26, 323.

8. Ebersson, F.: Proc. Soc. Exp. Biol. and Med., 1926, 24, 79; J. A. M. A., 1926, 88, 313; Am. Rev. of Tuberculosis, 1927, 15, 127; Proc. Soc. Exp. Biol. and Med., 1927, 24, 329.

Dermatology and Syphilology

THE Power for Good and Evil of Arsenic as a Remedy for Skin Diseases—The first knowledge of the specific pharmacodynamic effects of arsenic on the skin was gathered from observations on arsenic eaters, and from reports of various epidemics of arsenic poisoning.

Dermatologists learned long ago to restrict the use of arsenic to certain groups of chronic dermatoses such as lichen planus, dermatitis herpetiformis, leucæmias. Its use in chronic eczemas is abandoned; in psoriasis it is used much less than before; and in acute dermatoses its use is considered definitely contraindicated.

The outstanding effect of arsenic on the skin is the exaggeration and stimulation of all nutritional and functional activities. Of these we are concerned here with the tendency of arsenic to stir up inflammatory dermatoses of eczematoid type.

The first notice of this type of arsenic reaction was served on the profession with the advent of the arsphenamine therapy in syphilis, particularly where used as a routine procedure in courses and series of a certain number of injections. Exfoliating arsenical dermatitis with exceedingly grave reactions and a number of fatalities were reported. Fortunately, however, in 1920 the important discovery made by Ravaut of France, and introduced in this country by McBride and Dennie, that sodium thiosulphate is a chemical antidote of arsenic has decreased but by no means removed exfoliating dermatitis from the dreaded and fatal episodes in the lives of syphilitics.

The statement will bear repetition that many of these consequences can be prevented if the physician will look for and detect the first prodromal and warning signs of the arsenical intolerance and the impending danger. These signs, as so ably portrayed by John Stokes, are: (1) small punctate subcuticular flush about the trunk, neck and flexures on the day following the injection; (2) patches of dermatitis at the flexures, upon the shins, or the face. These may be present for some days or even a week before the explosion; (3) severe itching of the skin on the day following the injection; (4) scarlatinoform or morbilliform erythemas.

A new and further important observation has been made by Throne, Van Dyck and associates,² who have reported a series of eczema cases in which the history was suggestive of a possibility of arsenic absorption through food, environmental or occupational channels. They treated these patients with intravenous injections of sodium thiosulphate and were able not only to clear up the skin lesions, but also to demonstrate the elimination of arsenic in the urine. Further elaboration of this observation may prove valuable in many other cases of chronic eczema with seemingly obscure etiology; and it also adds another emphatic reminder of the potentially powerful irritating effects of arsenic on the skin.

MOSES SCHOLTZ.

Endocrinology

IODIN Therapy in Neurocirculatory Asthenia—During the World War physicians of all participating nations were puzzled by a symptom complex which manifested itself in many thousands of soldiers. It received various appellations: "irritable heart," "effort syndrome," "neurocirculatory asthenia," "autonomic imbalance," and "sympathicotonia." Many of the symptoms mimicked the clinical picture of Graves' disease in mild form, namely, palpitation, tachycardia, tremor, sweating, nervousness, excitability and irritability, insomnia, and lack of energy. Loss of weight was exceptional, although the majority of such individuals were apt to be undernourished rather than obese. Goiter was sometimes noted, but whether it was coincidental or related to the syndrome remained uncertain; at any rate the goiter was not of the hyperplastic variety (highly vascular with thrill and bruit characteristic of Graves' disease). Exophthalmus and the so-called thyroid eye signs were usually absent and, if present, were rarely pronounced. The basal metabolic rate was almost always normal. Occasionally a slight elevation was recorded (15 to 25 per cent plus). Repetition of the test usually disclosed a normal rate.

This syndrome is frequently encountered in civil life, especially in girls and young women and sometimes in men. Many of these patients have been regarded as victims of mild Graves' disease; some of them, therefore, have received inhibitory roentgen therapy to the thyroid gland; others have been subjected to partial thyroidectomy. Such treatment almost uniformly has failed to relieve the symptoms. The hypothesis of an hyperthyroidism as the fundamental cause seemed to be erroneous.

It was equally unsatisfactory, and futile, to dismiss these patients with a diagnosis of neurasthenia. Digitalis had but little influence on the tachycardia or subjective symptoms. Sedatives, such as bromides, were rarely effective and at best provided only temporary relief. Relatively slight emotional strain rather than physical effort evoked or exaggerated the syndrome, and yet psychotherapy, or "skillful neglect," proved less satisfactory than might have been anticipated. Rest cures, change of climate, ocean voyages, and all the gamut of medical artistry accomplished but little for this group of patients.

Critical opinion had about dismissed the idea of thyroid accountability when Kessel and Hyman, about two years ago, advanced the thesis that autonomic imbalance and Graves' disease were practically identical except for the absence in the former, and the presence in the latter, of an increased basal metabolism. Indeed they conceived of autonomic imbalance as a preliminary stage of Graves' disease and claimed that they had actually witnessed this transformation.

In the past few weeks the question has been reopened by an interesting contribution from Strouse and Binswanger¹ of Chicago. In a preliminary report of fifty cases, thirty-two of which had been "carried through long enough to permit of analytic study"; they announce that iodine medication produced remarkable and prompt relief of the symp-

1. J. Stokes: Modern Clinical Syphilology, 1926.

2. Throne, Van Dyck, etc.: New York State Journal of Medicine, October 15, 1926.

1. Jour. Amer. Med. Assoc., 1927, 88, 161-164.

toms. They believe, therefore, that this syndrome is associated with iodine deficiency. Moreover, the iodine treatment did not affect the metabolic rate. They are inclined to the idea that effort-syndrome (neurocirculatory asthenia, etc.) is due to some temporary derangement of thyroid function, and the writer agrees with them that a normal metabolic rate does not exclude thyroid disturbance.

The precise rôle of iodine therapy even in the well-recognized forms of thyroid disease is by no means settled. Its usefulness in the prophylaxis of endemic goiter has been abundantly confirmed. It is often effective in causing simple adolescent goiter to disappear. Its revival in recent years in the treatment of Graves' disease has been most interesting. There can be no doubt that in exophthalmic goiter iodine therapy causes a prompt and precipitate drop in the basal metabolic rate with striking improvement in many symptoms, and that its preoperative use in this disease helps to avoid postoperative thyroid crises and consequently reduces the surgical mortality. Its indefinite use in Graves' disease over a long period of time is not so beneficial and indeed may at times be harmful. Its administration in adenomatous goiter is supposed to be contraindicated though some dispute this. And now it is recommended for the symptoms of autonomic imbalance.

One must admit that this iodine beneficence in such diverse though related states, remains perplexing. But whatever the ultimate explanation may be, it will be a boon to a multitude of people if further experience with iodine corroborates the report of Strouse and Binswanger and relieves the symptoms of neurocirculatory asthenia.

H. LISSER.

DO All Forms of Tetany Depend on a Parathyroid-Calcium Disturbance?—The intimate association of laboratory investigation with clinical application is perfectly illustrated in the treatment of tetania parathyreopriva and conditions which simulate it closely.

Many theories of the pathogenesis of tetany have been promulgated. These vary from the assumption that a simple toxemia is the responsible agent, to elaborate explanations based on complex changes in the chemistry of the blood. McCallum stated several years ago that there may be several types of tetany differing widely in their etiology and in the mechanism of their production, although the final changes in the blood which bring about the actual symptoms may be the same.

The isolation by Collip, early in 1925, of a parathyroid hormone, which definitely influences calcium metabolism as evidenced by its effect on the blood serum calcium, has given renewed impetus to the metabolic study of the various inorganic constituents of the body. In most, but by no means all of the various types of tetany there is a reduction in the calcium content of the blood serum, and inasmuch as a paucity of calcium produces an hyperexcitability of the nerve cells, considerable interest has been manifested by various investigators in the metabolism of calcium.

Scott and Usher¹ have recently reported the re-

sults of their studies on the etiology and hematology of twenty-one cases of infantile tetany. One of the important results of this observation indicates that disordered calcium metabolism is not always indicated by changes in the calcium content of the blood serum and that there may be a defective utilization of calcium by the body even when the amount of that element in the food or blood is normal. They cited two cases in which infantile tetany occurred despite a normal blood serum calcium. On the other hand, if the fact that a reduction in the calcium ion concentration of the neuron results in an hyperexcitability, it must be assumed that in certain instances at least an actual diminution of calcium ion does not occur despite a marked lowering of that element in the blood serum, for the writer has seen at least one case in which the blood serum calcium was reduced to the extremely low figure of 5.5 mg. per 100 cc. (a case of severe alkalosis) without the usual manifestations of tetany being apparent.

Obviously then there must be some factor other than the actual lowering of the calcium content of the blood serum which produces the profound hyperexcitability of the entire nervous system associated with the clinical syndrome of tetany. Wells has stated that the calcium salts are held partly in solution, partly in protein suspension, and partly in the form of calcium ion protein compounds. It is probable then that even though the blood serum calcium content is normal, as in gastric tetany and in the tetany resulting from hyperpnea, the calcium is not available for use by the body. In other words, the determination of the ionized calcium rather than the total calcium is a procedure which must be investigated thoroughly before it is possible to properly evaluate the various theories of the pathogenesis of tetany.

The writer ventures to predict that eventually it will be determined that the hormone as isolated by Collip affects the calcium content of the serum only secondarily, the primary effect being in some way associated with the ionization of calcium. Such a condition would simplify the explanation of tetany and give very strong support to the unitary pathogenesis of all forms of tetany, the underlying factor being a metabolic disturbance which produces a reduction of *calcium ions* from the neurons, no matter by what means.

H. CLARE SHEPARDSON.

Gastrointestinal Disorders

JAUNDICE—Jaundice results from staining of the tissues with bile pigment. Bile pigment, or bilirubin, is a product of hemoglobin catabolism. Although there have been supporters of the extra-hepatic as well as the hepatic formation of bile pigment, it was pretty generally accepted until recently that the liver was essential for bile pigment production. However, with improved methods as applied by Whipple, Rich, Mann and others, it is now definitely established that under normal conditions bilirubin is formed in the liver, spleen and bone marrow, and apparently in no other organs or tissues. With bilirubin produced in the bone marrow, spleen

1. Journ. A. M. A., 87-1904, 1926.

and liver (apparently by the cells of the reticulo-endothelial system), and being excreted by the polygonal cells of the liver, it is evident that the pigment must be present in the circulating blood. We now have two methods by which this bilirubin in the blood serum may be measured. The first is the van den Berg test which can be readily applied in clinical work, the second is the more sensitive spectrophotometric method. By these methods it has been established that normally the concentration of bilirubin in the circulating blood varies but slightly. In the presence of definite jaundice these methods show the bilirubin content markedly increased, and allow of the accurate study of the degree of bilirubinaemia during the progress of the case. Finally, and of great importance, is the fact that these methods have enabled us to recognize degrees of bilirubinaemia, above the normal but below the degree necessary for definite jaundice, states of so-called latent jaundice. Such states of latent jaundice or definite jaundice must arise in one of three ways: (1) From increased formation of bilirubin in the spleen, liver, or bone marrow from increased destruction of red blood cells. (2) From a failure of the liver to excrete the bilirubin normally present in the circulating blood. (3) From a reabsorption of bile from the bile passages after excretion by the liver.

Our present classification of jaundice is based on these possibilities. Thus we have (1) haemolytic jaundice, in which as a result of increased blood destruction excessive amounts of bilirubin find their way into the circulating blood; (2) toxic and infectious jaundice, in which as a result of toxic or infectious processes the functional activity of the polygonal cells of the liver is so disturbed that they are unable to excrete the bilirubin normally present; (3) the well-recognized obstructive jaundice which results from the reabsorption of bile from the obstructed bile passages. There is also a fourth group which includes combined types, as it is evident that the same factors that produce increased hemolysis may also affect the polygonal cells of the liver, or that as a result of biliary tract obstruction the polygonal cells may also suffer.

It is apparent that in the obstructive type of jaundice all the constituents of the bile must find their way into the blood stream, whereas in hemolytic jaundice we are dealing with a pure bilirubinaemia. In the toxic and infectious type the bile salts and cholesterol may or may not be increased in the blood stream. It also seems established that bilirubin which has passed through the polygonal cells of the liver undergoes some change in structure so that its reaction with Ehrlich's diazo reagent as used in the van den Berg test is altered. As a result the van den Berg test gives valuable aid in differentiating the various types of jaundice.

From this brief review it is apparent that in cases of disturbed bilirubin metabolism our attention must now be centered on the degree of bilirubinaemia rather than upon the tardy and inaccurate estimation of the degree of tissue jaundice. To this end the van den Berg test should be generally adopted.

W. W. BOARDMAN.

Industrial Medicine

MEDICAL service in industry started because of surgical problems which arose out of employment. After establishment most industrial medical departments find that there is a new type of work, that of caring for minor illness.

According to C. H. Watson,¹ medical director for the American Telephone and Telegraph Company, there are three types of purely medical work in industry: (a) emergency sickness cases; (b) counsel and advice on sickness problems; and (c) diagnostic service. First aid should not be applied to injuries alone, but is also just as important and as properly applicable in sickness.

Sick employees are of two kinds: ambulatory and static, which is to say that they are able or not able to report to the dispensary. It is regarding those who are ambulatory that we are concerned and, further, with those who remain at work rather than those sent home.

"Is industry justified in maintaining such a physical disability repair shop? And does such service take business away from the local practicing physicians?" The average patient who has a minor ailment and is not incapacitated to the extent that he is kept away from work, is not likely to spend money on doctors. Without medical advice at this stage he would either resort to patent medicine or home remedies; in any event he initiates a campaign of self-treatment. Is it not rational, therefore, to apply the same principles here as in case of first aid treatment in accidents? A little wise advice at this stage may ward off a serious malady or, what may be worse in its moral effect, a bad habit. This is really the application of the ounce of prevention.

Three types of patients apply to the industrial dispensary for treatment of minor ailments: (1) those coming just occasionally; (2) those who are habitual visitors (the overcautious); and (3) those who report for every little uncomfortable sensation (the high mental type with morbid tendency). Watson² feels that if industrial medicine did nothing else than classify workers in this way, according to their reaction to illness, such a service would be justifiable in the light of useful information thus gained.

It is with the second and third types of patients mentioned that the advisory and diagnostic work is done. When medical problems arise, obviously the solution is best reached through the medical department. The extent of the diagnostic service will vary according to the individual case, the type of industry, its location, and the availability or necessity of the service of a specialist.

On account of the fact that the industrial physician cannot go out into the plant and select his patients, he will depend mainly on the overseers and supervisors to send in persons who do not appear to be functioning at their usual efficiency. This does not mean an intensive search for "lame ducks," but merely a check on the producing end of the organization.

1. Watson, C. H.: Some Aspects of Industrial Medical Practice, *The Nation's Health*, 8:817, December, 1926.

2. Watson, C. H.: Selling Industrial Medical Department Activities. *The Nation's Health*, 9:16, January, 1927.

The medical department should also be prepared to give advice concerning the services of specialists; the employee should be referred to men of ability and integrity and at the proper time for the best results.

There is an excellent opportunity in this work for the propagation of the right kind of health information at the time when it may do the most good.

Examination on return to work after illness is a health procedure worthy of a regular place in an industrial health program.

C. O. SAPPINGTON.

Medicine

ETIOLOGY of Rheumatic Fever—Ever since the beginning of the bacteriological era some fifty years ago physicians have attempted to prove a microbic cause of acute rheumatic fever. For the interesting story of the successive organisms which have been incriminated, beginning with the anerobic bacillus of Achalme, the reader is referred to the review by Swift and Kinsella.¹ Suffice it to say that nonhemolytic streptococci of one sort or another, especially the "diplococcus rheumaticus" of Poynton and Payne, have received especial support, although the most conservative modern opinion holds that the virus of rheumatic fever is as yet undetermined. Swift¹ studied the subject critically, and with the most careful methods of blood culture was able to recover nonhemolytic streptococci in less than 10 per cent of fifty-eight patients. Furthermore, the bacteria were not uniform, but represented different members of the so-called "viridans" group. It should be remembered that nonhemolytic streptococci are uniformly present in tremendous numbers in the upper air passages of every human being, both normal and abnormal;² they appear within twenty-four hours after birth. In accord with this fact it is found, in all laboratories where many blood cultures are made, that from time to time a positive yield of *s. viridans* is obtained regardless of the nature of the disease which is being investigated.

Rheumatic fever presents certain fundamental clinical differences from known nonhemolytic streptococcus infections such as *s. viridans* endocarditis. The pathological changes, as clearly pointed out by McCallum in his Harrington lecture,³ are entirely different; the great tendency to renal lesions in streptococcus infections is absent in rheumatic fever, and the response to salicylates, often striking in the latter, is insignificant in the former.

It is with interest, therefore, that one reads the recent paper of Small⁴ in which a nonhemolytic streptococcus, designated streptococcus cardioarthritidis, is advanced as the cause of rheumatic fever. The organism, which possesses the characteristics of many members of this group, was recovered in the

first instance from the blood of a patient with rheumatic fever. Later similar organisms were isolated from the *throats* of patients not only with acute rheumatic fever, but with chronic arthritis, acute nephritis, and other conditions. The original blood culture strain in large doses (25 cc. of 24-hour broth culture) produced arthritis and other lesions in rabbits. A serum prepared by immunizing a horse was used in a small number of patients. Its administration was followed usually by a marked improvement within one to two days, which in some cases was maintained for months.

Interesting as these results appear to be, a careful analysis of the work yields no final evidence either that the "streptococcus cardioarthritidis" is the cause of rheumatic fever or that sera prepared from it have a specific effect. The occasional recovery of a streptococcus from the blood, as pointed out above, means little; the recovery of nonhemolytic streptococci from the throat—their normal habitat—means even less. It has been shown repeatedly that any streptococcus injected into rabbits in large quantities produces joint lesions and other changes which have no specific relationship to the pathology of rheumatic fever.⁵ The therapeutic effects of Small's serum immediately raise the question of nonspecific action of foreign protein. Results apparently as striking have been reported in large series of cases by Miller,⁶ Cecil,⁷ and many other workers after injection intravenously of killed typhoid bacilli and other substances.

In brief, before accepting the etiological rôle of the *s. cardioarthritidis* in rheumatic fever one would need information about the frequency of this organism in the throats of the population in general, evidence should be forthcoming that the bacteria produce the specific lesion (Aschoff body) in animals, and finally it must be shown that better results are obtained therapeutically with the immune serum than with plain horse serum, a question at best difficult to decide in view of the variable natural course of the disease.

Meanwhile the matter has already received newspaper publicity. It behooves physicians to adopt a most conservative attitude and to await the results of large series of cases treated under careful hospital control and followed over a considerable period of time before subjecting their patients with rheumatic fever and chronic arthritis to treatment with antistreptococcus sera.

ARTHUR L. BLOOMFIELD.

USE and Abuse of Alkaline Waters—The widespread use of bottled alkaline waters in California has assumed such proportions that it would seem wise for physicians to survey the practice rather critically.

To what extent has this usage arisen as a result of medical prescription and direction, and to what extent from commercial advertising?

If we as physicians are responsible are we fully

1. Swift, H. F., and Kinsella, R. A.: Jour. Exper. Med., 1917, Vol. 19, p. 381.

2. Shibley, G. S., Hanger, F. M., and Dochez, A. R.: Jour. Exper. Med. 1926, Vol. 43, p. 415.

3. McCallum, W. G.: Jour. Amer. Med. Assn., 1925, Vol. 84, p. 1545.

4. Small, J. C.: Amer. Jour. Med. Sciences, 1927, Vol. 173, p. 101.

5. Cecil, R. L.: Jour. Exper. Med., 1916, Vol. 24, p. 739.

6. Miller, J. L., and Lusk, T.: Jour. Amer. Med. Assn., 1916, Vol. 67, p. 2010.

7. Cecil, R. L.: Archives Internal Med., 1917, Vol. 20, p. 951.

convinced that the practice is desirable? What harm and what virtue is there in it? Are there well-recognized disorders and diseases which may be relieved by subjecting the body tissues to a rather continuous alkaline bath and, if so, should definite quantity and time limits be designated?

Or have we been drifting into easy acquiescence, thinking there may possibly be some good, or at any rate little harm in such waters, satisfied that our arthritic or hypertension patients have something to play with even though they may have carried away the conviction that a large and continuous consumption is greatly to be desired and is a measure of first therapeutic importance?

It is not uncommon to find patients with hypertension, many with definite impairment of kidney function, using one or two quarts of some popular alkaline water daily for periods of one or two years, believing firmly that this practice is necessary and even life-saving. Some of these people have adopted the usage of such waters because they have read certain advertising literature—too many, perhaps, owing to the direction and encouragement of their medical advisors. There is apparent a great popular misconception and bugaboo about "acid conditions" alleged to exist in the human body and a general tendency to ascribe to such nameless disorders a multitude of symptoms and dysfunctions that by careful analysis can be explained otherwise.

The conditions of acidosis, alkalosis, and the maintenance of the acid-base equilibrium in the body are only beginning to be understood. Much more careful experimental work remains to be done before we can be too dogmatic on the subject. There seems to be fairly general agreement, however, that with normal renal function the mechanism of neutrality regulation is very efficient and any excess of alkali is excreted and otherwise compensated for without any disturbance of the acid-base equilibrium. But in patients with disturbed renal function it is not difficult to induce an alkalosis, even when a preceding state of acidosis has existed, as such kidneys may be as inefficient in getting rid of an excess of alkali administered as they were in excreting the normal excess of acid. Alkalosis and tetany have been brought about in certain patients on therapeutic alkaline régimes. Recent experimental work on animals has shown that on highly alkaline régimes blood cells, albumen, and casts may appear in the urine, while with proportionate amounts of acids such conditions do not obtain. Continuously neutral or alkaline urines may also favor the formation of renal calculi. While there is no statistical evidence to prove this contention, at least our renal specialists uniformly attempt to keep the urine acid even to the extent of administering acids as a prophylaxis.

The question also naturally arises as to the final effect on the gastrointestinal tract and the processes of digestion of a continuous neutralization of the hydrochloric acid. If a specific object is to be obtained, such as the control of a peptic ulcer, we may accept certain harmful effects of an alkaline régime, if the cost is not too high, for the sake of the greater good accomplished, just as we do in the use of mercury in the control of syphilis. The use of alkaline waters seems desirable and even benefi-

cial in the acidosis of acute infections, in some acute abdominal upsets with vomiting, in certain bladder and renal pelvic conditions, and for symptomatic purposes in many disorders. But the advisability of their use over a considerable period of time and in many of the more chronic metabolic diseases would seem questionable.

FRED H. KRUSE.

Neurosurgery

LOCALIZATION of Tumors of the Brain—

In the early days of surgery of the nervous system the surgeon was purely an operator acting under the guidance of the neurologist, who took the responsibility for the localization of the lesion and for the extent of the operative procedure. Today there are many men who devote most or all of their time to neurosurgery, and, as a result of this specialization, technique has improved and operative mortality is much lower. In a constantly increasing number of patients it is possible to observe gross pathological changes in the living tissues, and to correlate them with the clinical findings. But before a tumor can be exposed at operation it must be localized. The neurologist was at first almost entirely dependent on the history and the clinical findings in making his diagnosis and localization. Valuable help has come from the roentgen ray, and stereoscopic films of the skull now reveal much that was not seen in the old plates. Calcification in tumors is demonstrated quite frequently; it is no longer difficult to determine whether the sella turcica shows pathological changes; proliferation of the skull over a dural tumor may be an ingrowth of new bone, impossible to detect except with the roentgen ray; and localized erosions of the skull are frequently significant.

The most important advance came with the introduction of cerebral pneumograms or ventriculograms by Dandy of Baltimore in 1918. Cerebrospinal fluid is withdrawn from the ventricles, and air is injected in its place. Roentgen rays then give a picture of the ventricular system, because the air casts no shadow. All tumors of the brain which give symptoms of pressure produce distortion or change in the size, shape or position of the ventricles. Dandy says that ten years ago less than 50 per cent of tumors of the brain could be exposed at operation; that now exposure is possible in 65 per cent because of better roentgen rays, better surgery and increased experience; and that *all* the remaining 35 per cent can be localized by the cerebral pneumogram. Have others been able to confirm this statement? Grant⁴ has collected 392 cases from the records of several neurosurgeons. The method was of value in 311 cases, but in 218 it confirmed a neurological diagnosis, or was unverified, or ruled out a suspected tumor. Ninety-three tumors were localized and exposed at operation solely through the aid of the pneumogram. There were errors of technique in 10 per cent of the cases, and the mortality was 8 per cent. But the mortality of unlocalized tumors is 100 per cent, and of the ninety-three tumors which could not have been local-

4. Grant, Francis C.: Ventriculography, Arch. Neurol. and Psychiat., 14:513 September, 1925.

ized otherwise, forty-four were removed at operation. Grant's figures substantiate Dandy's claims, if we allow for inexperience with a new method. It is fair to conclude that, in the hands of those competent to do a cerebral pneumogram and to interpret the findings, it will reduce almost to the vanishing point the number of tumors of the brain which cannot be localized and exposed at operation.

E. B. TOWNE.

THE increasing number of those specializing in limited fields of medicine and surgery has been a cause of considerable concern to physicians and the public. One outstanding asset of specialization is the impetus given the fund of knowledge in that special field. Progress will be fastest and safest when men concentrate their interests and energy. Before diagnostic and therapeutic measures can be standardized there must be much pioneer work.

The fourteenth meeting of the Society of Neurological Surgeons was held in St. Louis recently. This was an occasion for an editorial in the *Missouri State Medical Association Journal*. The rapid growth and advance of this specialty are of interest to the profession and laity as well. Only a few years ago surgery of the nervous system was considered an interesting but impractical field, much as the present generation regards cardiac surgery. Twenty years ago a few men, probably less than five in this country, majored their chief interests in this specialty. Today nearly every medical school has a well-organized department of neurological surgery. The pioneers have assaulted barriers of prejudice, inexperience, and technical difficulties almost insurmountable. The ingenuity, skill, courage and tenacity of Horsley, Cushing, Frasier, and others should be an inspiration to future adventures into what appears to be forbidding and unpromising fields.

Surgery was the means of correcting many a mistaken idea regarding abdominal physiology and pathology. This statement can be repeated with added emphasis in the neurological field. Improved technical methods allow cranial and spinal explorations to be carried out with comparative safety. Operative mortality is greatly reduced in spite of more extensive and venturesome surgery. Physicians are stimulated to make an early diagnosis in the tumor or abscess case in the hope of radical cure rather than await the postmortem findings to disprove or substantiate their contention. Correlation of the clinical picture, the operative findings and the microscopic pathology have added tremendous knowledge as regards diagnosis, treatment, and prognosis. Doctors Cushing and Bailey have recently published an extensive monograph on gliomas that is most enlightening. Gliomas formerly classified in one group are now divided as to pathology, and a prognosis can be given with some exactness. There are still wide gaps in our knowledge of this field and great technical difficulties to be overcome. Progress to date, however, would seem to promise much for the future development.

HOWARD W. FLEMING.

Neuropsychiatry

THE Therapeutic Problems of General Paralysis—Kirby and Bunker, in the October number (last published) of the *American Journal of Psychiatry*, present an exceptionally thorough report upon a series of cases of general paralysis treated by malarial infection. Inasmuch as one out of every ten patients admitted to hospitals for mental patients suffers from this dread disease, the mentioned, and many other previously reported, efforts are to be commended. However, it is essential that we correctly evaluate the entire therapeutic problem of the disease.

1. We are evidently obtaining fairly frequent and prolonged apparent arrests in the progress of the disease. Naturally they must be called "remissions" until time justifies other conclusions. These remissions, quite alike in type but perhaps shorter and less common, were seen before the days of malarial and similar therapy—in fact before we knew arshphenamin. They appeared to follow vigorous catharsis; at times they just came—we knew not why. They were interpreted as proof that the bulk of symptomatology rested upon toxic, rather than degenerative, structural, foundation.

2. These remissions would endure for days, weeks, months—rarely for years. Eventually always a renewed fury of the disease made short work of the victim. Only very superficial observers ever claimed full restoration of physical and mental normal during these remissions. Always there could be shown a degree of residual, permanent physical and mental impairment. We find no grounds for assuming the present-day therapy to be fundamentally more effective.

3. One may concede a rare exception, but clinical experience has shown that when the neuropsychiatrist first meets the general paralytic, sufficient cortical neuropathological change has already taken place to make complete restoration of function impossible. With all unaffected tissue restored at that moment the patient would be found permanently lacking in his finer, most valuable mental activity.

4. We are forced to the inevitable conclusion that up to and including our present-day efforts our therapy comes too late. In a measure, perhaps the general practitioner fails to follow his syphilitic patients sufficiently closely to discover the early neurologic (pupillary, etc.) and spinal fluid changes. More likely it is because we know so little of certain important elements of etiology. Why are the syphilitics of certain races (Java, Turkey, Algiers, etc.) almost immune to general paralysis? Why has Croatia and Slavonia of Jugoslavia the average percentage of paretics while the closely related Bosnian neighbor is almost free from it?

What constitutes individual and racial immunity? How may we safeguard the syphilitic from the parenchymatous invasion? Is it not possible that in our anxiety to kill the spirochetes we reduce

rather than build defenses available through correct hygiene and good nutritional standard?

V. H. PODSTATÁ.

THE Malaria Treatment of Paretic Dementia—It has been noticed frequently that patients with paresis have shown signs of improvement in their mental status during and following an intercurrent infection. For nearly forty years attempts have been made with various fever-producing agencies to arrest the disease, and in 1887 Wagner von Jauregg advocated inoculation with malaria; but only since 1917 has there been a definite effort to treat paresis by this method. Articles have appeared frequently in recent medical literature detailing methods and results. The contributions of Bunker and Kirby in a first report¹ and a second report² are to be mentioned, particularly because of their case discussions. They studied 106 patients of undoubted general paralysis inoculated with tertian malaria. Of these twenty-two died, eleven as a result of the treatment; twenty-six were unimproved; eight were slightly improved; thirteen attained moderate remissions, and thirty-seven full remissions. Wagner von Jauregg's technique is, as follows: "From 1 to 4 cc. of benign tertian malarial blood is injected, subcutaneously or intramuscularly. The patient is allowed to have eight or nine chills, occasionally ten or twelve. Quinin bisulphate is then given in doses of 7½ grains twice daily for three days; then 7½ grains is given once daily for fourteen days. Following the quinin treatment, six injections of neoarsphenamine are given, beginning with 0.3 gm. and increasing to 0.6 gm. one week apart."

McIntyre and McIntyre³ in commenting on inoculation malaria say that "inoculation may be made at any time during the course of the malaria and does not have to be made during or after a chill. A strain may be passed from patient to patient indefinitely. Wagner von Jauregg passed one strain through thirty-seven generations. Some patients are immune to inoculation malaria. Attacks may vary from tertian to quotidian type. Inoculation malaria is very sensitive to quinin. Physical and mental improvement in malarial treated general paralytic persons, go hand in hand. In all possibility inoculation malaria becomes entirely asexual in type and cannot be transmitted by the mosquito." The same observers give the following contraindications for malaria treatment: 1. Rundown general physical condition with circulatory asthenia. 2. Anemia. 3. Kidney lesions. 4. Heart lesions with myocardial degeneration. 5. Patients with a persistent leukocytosis. 6. Meningovascular type of cerebrospinal syphilis with localized lesions is a poor risk because the malaria exaggerates these conditions.

At the University of California Medical School four cases of the expansive type have been treated with successful results. At least three have returned to work. Serologic results apparently vary greatly and cannot be correlated with the therapeutic results.

RICHARD W. HARVEY.

1. Journ. A. M. A., February 20, 1925.

2. Arch. of Neurol. and Psychiatry, August, 1926.

3. Arch. of Neurol. and Psychiatry, August, 1926.

Obstetrics and Gynecology

IS the Dictum "Once a Caesarean, Always a Caesarean" Correct?—The strength of the uterine scar after a section is of vital importance, and yet our methods of judging this strength in a subsequent labor are not always conclusive. In the "high," or classical operation, the incision is made in that part of the uterus which, because of the contractions of the musculature, is constantly undergoing change in volume, a condition which interferes with the maintenance of apposition of the sutures and affects healing. If the sutures are tied too tightly there is a local necrosis of tissue which is already impaired by the process of involution. And, finally, if an infection of the suture line is added to the above factors we have a resulting scar which cannot stand the strain of labor. The frequency of rupture of the scar ranges from 4 to 10 per cent, although Holland, in England, in a large collective review reported that twenty-five out of every one hundred caesareanized women had a rupture in subsequent pregnancies.

More recently the low or cervical caesarean section has become popularized. The advantage of this type of incision is dependent upon the fact that the suture line is in the relaxed inactive portion of the uterus which permits good approximation of the cut surfaces and, therefore, a stronger scar. However, it must be emphasized that this type of operation is done on women usually advanced in labor and in whom the uterus is potentially or actually infected, a factor which markedly influences the healing of the suture line. Moreover, after a cervical section the scar is in that portion of the uterus which in subsequent labor becomes thinned out and stretched. It must be borne in mind that these conditions may offset the advantage of the site of incision. Because of its comparatively recent adoption, the frequency of rupture after the low incision is uncertain, although Witterwald¹ refers to his thirty-five cases of delivery after a previous cervical section in which the incidence of rupture was 3 per cent, and the writer recently operated on a woman whose uterus ruptured early in labor after a former low cervical section. Therefore neither the high nor the low incision can be considered free from the danger of rupture.

What should influence our method of treatment of caesareanized women coming to another labor? In the presence of pelvic disproportion, the correct method is obvious, namely, repeated section.

The following considerations may be of value in influencing our judgment as to choice of delivery. The history of a former febrile puerperium should suggest an infection and faulty healing of the uterine incision. The graphic chart of the woman's convalescence is a good index of the strength of the scar. Irregularity in uterine outline near term should suggest a weakness of the wall and threatening or even actual rupture.

If we decide to permit the woman to undergo a labor, delivery must take place in a hospital, where laparotomy can be quickly performed should the

1. Witterwald: Zentralblatt für Gynäkologie, 1926, 50, 592.

indications arise. The woman must be relieved of the strain of the second stage of labor as soon as possible by mid or low forceps, and episiotomy. One successful delivery via the natural channel does not guarantee the scar will not rupture in following labors, and the above precautions must be repeatedly observed.

ALICE F. MAXWELL.

Ophthalmology

THE Eye as an Indicator of Health—The eye holds within its small compass more possible diagnostic information than can be obtained from any other region of the body. Every diagnostician should equip himself with a binocular loupe and an ophthalmoscope, and perfect himself in their uses.

A blepharitis, stys, chalazions, or a chronic catarrhal conjunctivitis frequently denote eye strain, which may be responsible for many nervous and reflex symptoms as well as headaches.

Unusually soft eyeballs occur in diabetic coma. Puffiness of the lids suggests nephritis, trichinosis, or arsenic poisoning. Bilateral exophthalmos is a cardinal symptom of Graves' disease. A protrusion of one eye suggests a cavernous sinus thrombosis or a breaking through of an ethmoid or a frontal sinus. Jaundice of the sclera suggests a common duct obstruction.

Diplopia, except in rare instances, is due to a paresis or a paralysis of one of the muscles that rotate the eye: this paresis or paralysis may involve a single muscle or a group. The sixth nerve supplying the external rectus is the most frequently involved, but the third is frequently involved also, producing a ptosis or a ptosis and a paralysis of all muscles supplied by it. The most frequent cause of these nerve involvements is syphilis or an intracranial hemorrhage. A toxemia will sometimes produce a temporary paresis of one of these muscles.

Scars of the cornea, aside from those produced by traumatism, should be investigated. Scarring from an old interstitial keratitis is due to congenital syphilis. Those due to phlyctenulosis were probably caused by an active tuberculosis in childhood.

The pupil gives us a lot of information. Contraction is brought about by the oculomotor; dilatation by the sympathetic. Morphin causes a contraction, while cocain poisoning, shock, fainting, causes a dilatation. Inequality of the pupils is a sign to be seriously considered. While the pupils may be congenitally unequal, it is not safe to assume this to be the explanation. Many causes of neurosyphilis produce an anisocoria as the only evidence of abnormality. The well-known Argyll-Robertson pupil needs no comment.

In the use of the ophthalmoscope, always use one drop of a 2 per cent homatropin solution to dilate the pupil. There is no use in trying to look into a room through a keyhole when you can open the door. When the examination is finished, counteract the effects of the homatropin with a $\frac{1}{4}$ per cent eserine.

In examining the fundus, first learn the appearance of the normal fundus. The physician will

be most interested in determining a choked disc. Arteriosclerosis, hemorrhages of the retina, embolism of the vessels and optic atrophy as well as cupping of the disc such as occurs in glaucoma.

Any modern textbook of ophthalmology contains cuts of the different diseases of the fundus, and by getting a mental picture of any given condition it is comparatively easy to make a diagnosis in the well pronounced lesions, leaving the finer points in diagnosis to the oculist.

WILLIAM A. BOYCE.

Orthopedics

FRACTURES of the Os Calcis—Crushing fractures of the os calcis cause severely crippling, permanent disabilities. Such fractures usually result from landing upon the feet after a fall from a height.

At the moment of impact the malleoli are driven toward the landing surface, the astragalus usually remains intact beneath them and the os calcis fractures, impacts and widens in its subastragaloid segment. Rarely it shatters or splits. This discussion will be confined to the depressed, impacted and laterally broadened type of distortion.

Probably both the ball of the foot and the bearing surface of the heel remain stationary upon the landing surface at the moment when the bone gives way downward and inward, between and beneath the malleoli. Pronation of the forefoot, bulging beneath the external malleolus and deflection of the heel upward and outward result in the characteristic deformity.

Treatment should be undertaken with the respect due a lesion which involves two major weight-bearing joints. Immobilizing in plaster, in the position of original deformity, results in severe crippling.

Pins, screws or ice-tongs inserted into the os calcis, or a Thomas wrench applied to the heel have been extensively utilized to pull down and realign the posterior fragment. Pull of the calf muscles is overcome by tenotomy or minimized by plantar flexion. Crushing between the jaws of a padded screw clamp or by mallet blows are resorted to to correct lateral spreading. Deformity may be corrected by such measures, but a discouragingly high degree of disability persists.

Disability is due chiefly to painful subastragaloid joint and is associated with loss of useful motion in that joint. Exostosis beneath the external malleolus is a less important factor.

After typical fracture of the os calcis, crippling disability can be minimized only by restoring the subastragaloid joint to a useful degree of painless function or by obliterating the joint.

Continued traction applied through caliper tongs so as to overcome the pull of the calf muscles and to restore length and alignment to the impacted os calcis, a method of treatment earlier used by Cotton, more recently perfected by Bull, does recover a definite percentage of fractured os calci with relatively painless and movable subastragaloid joints. Notwithstanding such traction is by far the best

conservative treatment yet devised, results from its use are often disappointing.

Lateral impaction by screw-clamp or by mallet blows is not to be recommended, because such treatment almost always exaggerates the damage to the subastragaloid joint. Wrenching the heel forcibly into alignment is open to the same objection, though to a lesser degree.

Arthrodesis of the subastragaloid joint is a recently recognized treatment for such fractures. Boston orthopedic surgeons, notably Philip Wilson, have been using this operation with remarkably good results for several years.

Certainly many typical fractures lose all useful motion in the subastragaloid joint when treated by any method now in use. Crippling pain is associated with the otherwise negligible motion which remains. This pain can be cured by arthrodesis, with radical removal of exostoses from beneath the malleolus. Deforming malalignment may be corrected during the same operation.

Lateral movement at the ankle depends upon the integrity of the subastragaloid joint. Since man has come to walk nearly everywhere, upon level floors and pavements, he does not need his subastragaloid joints so much. Nevertheless, loss of this joint means a real disability, especially to workers who are constrained to stand or walk upon uneven or unstable surfaces. No joint should be needlessly sacrificed.

Some subastragaloid joints may be recovered by the traction treatment, and it is often not possible in a recent fracture to see whether or not the subastragaloid joint is too badly damaged to regain useful function. Where there is reasonable hope of recovery, primary treatment should be conservative, with the thought in mind that failure still leaves opportunity to save the day by arthrodesis.

The treatment of choice for the recent os calcis fracture with hopeless damage to the subastragaloid joint and for all other cases where a painful subastragaloid joint remains after conservative treatment is arthrodesis.

E. W. CLEARY.

Physiology, Biochemistry, and Pharmacology

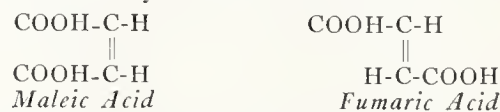
SIGNIFICANCE of Cis-Trans Isomerism in Antisepsis and Other Biological Phenomena—Aside from the purely chemical differences between inorganic and organic compounds, there is a marked difference between them when the effects upon the living organism are considered. For example, arsenic is toxic in some degree regardless of its mode of chemical combination provided it can be rendered soluble and therefore absorbable. This is not the case, however, with carbon, oxygen, hydrogen, and nitrogen. The biological effects of organic substances do not depend upon the kinds of atoms constituting the molecule, but rather upon the number and arrangement of the atoms within the molecule. The formula $C_2H_4O_2$ is the same for both acetic acid and methyl formate, but a different grouping of the atoms is responsible for the differences in their properties. The ordinary articles of food on the one hand, and substances having marked

toxic properties on the other hand may have the same ultimate composition, but they differ with respect to the numbers and positions in the molecule of the same kinds of atoms, and in their behavior toward the living organism.

The most outstanding example of the dependence of biological effects upon spatial arrangements of the atoms within the molecule is found in optical isomerism. Pasteur was the first to demonstrate the biological difference between the laevo- and dextro-rotatory forms of tartaric acid. Since then the biological importance of optical properties in organic substances has been repeatedly shown. In recent times Cushny has demonstrated their importance in the pharmacology of the atropine group. Most of the organic compounds occurring in nature are laevo-rotatory, or when both forms occur the laevo usually predominates over the dextro. In fact, life seems to be in some way intimately associated with or dependent upon laevorotation.

The type of spatial arrangement of atoms discovered by Pasteur depends upon the presence of at least one asymmetric carbon atom within the molecule, and represents only one kind of isomerism in organic compounds. There is no a priori reason for believing asymmetric carbon isomerism to be the only type of isomerism having biological significance.

The recent investigation of Cooper and Edgar¹ may well be the starting point of fruitful studies upon the relation of other types of isomerism to medicine, and to biology in general. These workers studied the cis-trans type of isomerism, which is well illustrated by maleic and fumaric acids:



Maleic acid represents the plane-symmetric, maleoid, or cis-form, and fumaric, the axial-symmetric, fumaroid, or trans-form.

It was shown that although maleic acid (the cis-form) was the stronger acid, fumaric acid (the trans-isomer) was the stronger germicide for a variety of organisms in vitro. The same relationship held for the methyl homologues indicating that the configuration of the molecule was a more important factor than the hydrogen-ion concentration (acidity) in determining bactericidal power. Similarly, the trans-acids exhibited a greater inhibitory effect upon the activity of the ferment diastase, a greater accelerating action upon the digestive power of pepsin, and were more efficient as protein precipitants than the cis-acids. These properties may explain the relative bactericidal action of these two isomeric forms, and also differences in their efficiency as irritants. It is of practical interest to note that although fumaric acid is said to be less toxic than maleic acid to higher animals, it is a stronger disinfectant.

The work is indeed suggestive to say the least, and it is to be hoped that the next step, namely the application of the various factors to antisepsis in vivo, will soon be undertaken. Applications in pharmacology and therapeutics also come to mind,

1. E. A. Cooper and G. H. Edgar: The Biological Significance of Cis-Trans Isomerism, *Biochem. J.*, 1926, 20:1060.

for a consideration of isomerism in its various forms may aid the further correlation of chemical structure with physiological action, and therefore give a more fundamental conception of drug action. This, it may be hoped, will materially assist in making therapeutics more rational and scientific.

FLOYD DE EDS, PH.D.

Proctology

THE treatment of hemorrhoids as indicated in current literature presents little novelty. On the whole, the prevailing opinion is that prolapsing and prolapsed hemorrhoids should be surgically removed, while others giving symptoms (mainly bleeding) may be treated with injections. The subject is fully elaborated in a recent book by J. F. Montague.¹ For injection he prefers, as does the writer, a 20 per cent solution of phenol in glycerine using 3-5 minims for each hemorrhoid and injecting one or two hemorrhoids at a time. Others use a 5 per cent solution of urea and quinin hydrochloride and others again 95 per cent alcohol. The hemorrhoidal masses should be made to tumefy themselves within the rim of a Kelly's proctoscope assisted by the patient endeavoring to extrude them. Each is then sharply punctured by a hypodermic needle carrying the fibrosing fluid and the necessary amount injected. There is no pain unless the fluid is injected beneath the anal mucosa, when it may be very severe. Bleeding always may be stopped by this method and mild prolapse at stool prevented. On an average four injections into each hemorrhoid will suffice to bring about shrinkage. There is no interruption in the patient's activities.

Pennington² insists on his "open" operation. A small incision is made through the mucous membrane over the everted hemorrhoid, the "varicosity protruded" and "radically removed." This method, however, does not provide for the obviously redundant mucous membrane which has become part of the prolapsing varicose mass. Apart from Pennington's method, the ligature and excision method appears that most universally accepted. The Saint Mark's Hospital, London, plan is, without divulging the sphincter, to seize each hemorrhoid, draw it downward and to incise at the ano-cutaneous margin upward for half an inch or so. The incision is in the cellular tissue and separates the mucous membrane with varicose veins internally from the sphincter externally. Braided silk is tied tightly around the upmost limit of the separated hemorrhoid, which is then cut off beyond the ligature. The ligatures slough off in a week's time. The operation takes ten minutes. There is little bleeding and the wounds are not sewn up.

New statistics are available on the occurrence of cancer in the colon. Patterson and Brown³ give 91 cases in the pelvic colon and 22 and 19 in the cecum and splenic flexure respectively in a series of

171 cases. These exclude any that might possibly be thought to arise in the rectum. Walker⁴ states that 60 per cent occur in the rectum and 20 per cent in the iliac and pelvic colon. A. H. Burgess⁵ in 485 cases gives 46.5 per cent as occurring in the rectum and 29.4 per cent in the sigmoid colon. Seventy-five per cent of these were too extensive for radical operation, a tacit criticism of those who first see patients with colonic symptoms. In this large series 35.6 per cent were associated with acute obstruction and of these 86.7 per cent occurred in the left half of the colon. Thus "there is a 6.5 to 1 chance of a malignant growth that has caused obstruction being on the left side." The fact that more than one-third of cancers of the large bowel are associated with acute obstruction demonstrates that both in operable and inoperable cases procrastination is not permissible before an opening, either palliative or in the course of radical surgery, is made to drain the bowel above the diseased area.

M. S. WOOLF.

Radiology

RADIATION Therapy in Its Relation to the Cancer Problem—A well-known authority is quoted to the effect that about 10 per cent of cancer patients, excepting the skin varieties, are curable by surgery, which means that in communities where competent surgical aid is available, 10 per cent of all classes of cancer (skin cancer excepted) recover if submitted to surgery, and may be considered surgical cures. On the other hand, a classification of radiation therapy in the same analysis appears equally favorable, if not more so. Most of the radiation therapy results, on which we have reasonably reliable data, cover carcinoma of the breast and uterus. If we limit our surgical cures to these two fields the percentage would unquestionably increase, perhaps, to 15 or 20 per cent. Similarly if we limit our investigations on radiation cures to the same classification, and take statistics of such cases as are treated in acceptable institutions by x-rays and radium, the clinical cures vary from 20 to 25 per cent. In some outstanding clinics where exceptional skill in the use of radiation therapy is manifested, clinical cures run up to 30 per cent. Of course the favorable increase here is undoubtedly largely influenced by the preponderance of uterine cases over those of the breast.

Whether or not an intelligent cooperation between surgeons and radiologists, and the combined use of these agents in the field under discussion will materially increase the clinical cures, must be, in the light of experience, answered in the affirmative.

It appears that surgery, from a mechanical standpoint at least, has well-nigh reached perfection and it is difficult to visualize any drastic change from present technique either in application or results from this agency alone.

Radiation therapy, however, is still open to further study and development sufficient to warrant

1. Modern Treatment of Hemorrhoids by J. F. Montague. J. B. Lippincott, 1926.

2. Hemorrhoids, J. Rawson Pennington. J. A. M. A., December 18, 1926.

3. Cancer of the Colon, Patterson and Brown. Edin. Med. J., 1926, 33, 10.

4. Cancer of the Colon, Walker. Glasgow, Med. J., February, 1926.

5. Cancer of the Gastrointestinal Tract. A. H. Burgess, B. M. J., January 1, 1927.

our belief in a more hopeful future. The question of the proper combination of surgery and radiation is also still an open one, and this refers particularly to whether or not one is justified in removing a carcinoma of the uterus which, from all external appearances, has been thoroughly fibrolized by radiation. The same query may be directed toward a primary cancer of the breast after an apparently successful fibrolic state is produced by radiation. In such conditions an open consultation is the best course to pursue, and the problem of procedure must be left to the conscientious surgeon to decide.

We believe that all cases of cancer which are not strictly superficial and where a reasonable expectation of a successful surgical removal can be assured, should have a proper course of radiation treatment first. This seems to us to be highly desirable.

ALBERT SOILAND.

Surgery

THE Los Angeles Plan for Postgraduate Study—The Los Angeles County Medical Association has formed a new Clinical and Statistical Section. It comes under the same regulation as other sections, and any member of the County Association is eligible to membership in the section.

A circular is issued daily giving a list of the operations and operating surgeons, or of clinics held in any line of medicine or surgery. All accredited hospitals are cooperating with the section and can have a listing of work done in such institutions as appear in the daily bulletin that is sent to each member of the County Medical Association.

The interests of the section are safeguarded by a board of seven directors. An Advisory Committee to the Board of Directors is composed of a representative chosen by each cooperating hospital. The objects of the section are both immediate and remote.

Among the more immediate benefits sought are those resulting from seeing the work of others. All physicians are invited to see any of the operations, surgical or medical clinics listed. It is hoped that visiting physicians, while in Los Angeles, will avail themselves of this opportunity to see the line of work in which they are interested.

Members of the profession in near-by sections of California or other states, when visiting Los Angeles for longer or shorter periods, are invited to avail themselves of postgraduate work thus offered. The plan also stimulates and encourages the best efforts on the part of those responsible for operations and clinics.

Among the remote benefits expected from the plan are larger, more accurate and consequently more valuable statistics. These statistics will be collected from all the work done in the cooperating hospitals, recorded in code by a punching machine, and give a reliable record.

After a period of months or years any member can in a few moments, by use of the sorting machine, have all his cases, upon any subject, before him. No member can obtain another member's individual record, but the combined statistics from all the hospitals can be obtained by any member without ob-

taining the names of the physicians from whose service the statistics were compiled.

The plan has many advantages, great possibilities, seems eminently fair to all and disadvantageous to none. It has been in operation for a few months. The early difficulties incident to prompt delivery of the listing are being overcome, and visiting practitioners are invited to take advantage of this opportunity for postgraduate observation.

FOSTER K. COLLINS.

TREATMENT of Acute Peritonitis—Acute peritonitis was first well described in 1314 as the "Iliac Passion." Since that such names¹ as Thomas Willis, Brithat, Travers, Thomas Sutton Treves, Mescatello, Fowler, and J. C. Murphy are distinctly associated with the progress in the understanding of this condition. The present mode of treatment is to a large extent that outlined by J. B. Murphy—sitting-up position, no food by mouth, saline per rectum, drainage of the peritoneal cavity, and administration of aperients.

Today we emphasize the need of fluids. The value of sodium chloride preparations is evident and subcutaneously these can be given, preferably, on the inner or outer sides of the thigh or under the breasts. Glucose solution, 5 or 10 per cent, intravenously supplies not only needed fluid, but also valuable nourishment. The amount of fluid for the average adult should total between 2800 and 4000 cc. per twenty-four hours. NaCl or Ringers can be given in 1000 cc. amounts subcutaneously at one time. Properly prepared glucose solution, 10 per cent, preferably 700 cc. at a time and the infusion consuming a period of forty-five minutes can be employed two or three times daily. With this type and amount of fluid intake, the death rate in acute peritonitis has dropped 5 to 10 per cent.

The large proportion of so-called acute peritonitides are in reality local peritonitis with a more or less complete paralytic ileus above. Handley² has demonstrated this in postmortem studies. The seriousness of peritonitis is not the infection *per se*, but the result therefrom of a potential intestinal obstruction. All physicians know that distention, vomiting and dehydration are the prominent features of clinical peritonitis. These symptoms are none other than a potential intestinal obstruction, and if death ensues, the end is similar to that from wound or surgical shock or a proteose intoxication and is due to the marked toxicity of the upper intestinal content as demonstrated by Whipple.³

Transduodenal or even gastric drainage and lavage, in order to remove this toxic proteose material, improves the condition of the patient tremendously. A drainage tube fashioned after the Jutte⁴ tube passed through the nostril and left in situ for twelve to ninety hours with continuous and later judiciously interrupted drainage will show another

1. Carlson, H. W.: The Evolution of the Modern Treatment of Septic Peritonitis, *Lancet*, May 19, 1923, 1035-37.

2. Handley, W. S.: Acute General Peritonitis and Its Treatment, *Brit. Jour. Surg.*, January, 1925, 12, 417-34.

3. Whipple, G. H.: Intoxication of Intestinal Obstruction; Collected Reprints from G. W. Hooper Found. of Med. Res. 5, 1919-20, 15th paper.

4. Jutte, M. E.: Transduodenal Lavage, etc., *New York Med. Jour.*, March 16, 1912, 95, 543-44.

gain in lessening mortality as great as that shown by the previously mentioned use of fluids. The use of this tube for postoperative or toxic vomiting, beginning dilatation of the stomach, postoperative ileus or intestinal obstruction will be found to be the most useful new procedure of the day. Bassler⁵ said in addressing the Southern Surgical Association: "If I leave no message with you but the use of transduodenal lavage in postoperative ileus, I feel that my paper has not been in vain. Its employment is of distinct advantage and will bring happiness to you."

The recognition that the serious symptoms of peritonitis are those of a potential intestinal obstruction, the employment of fluids subcutaneously and intravenously in 2800 to 4000 cc. amounts in twenty-four hours and the use of the Jutte tube for upper gastrointestinal drainage and lavage marks a new era of progress in the treatment of acute peritonitis.

JOHN HOMER WOOLSEY.

Tuberculosis

IN a masterful summary of our knowledge of many important phases of tuberculosis at the fifth conference of the International Union Against Tuberculosis recently, Krause¹ brought out that tubercle is the anatomical response of the body to tubercle bacilli, and may be conceived as of two types: (a) nodular tubercle, which represents the native anatomical response of the tissues, and (b) non-nodular tubercle, representing an anatomical response acquired as the result of the previous formation of the nodular tubercle.

Tubercle bacilli, continued the speaker, are sluggish in development. They contain proteins, and combined with them a high content of lipoids, the chief of which is a very refractory wax. By virtue of these lipoids they are very resistant to outside agencies.

When they settle in the tissues for the first time the tissues react to their presence by forming nodular tubercle, which is their native method of dealing with foreign bodies which they cannot dispose of by direct disintegration. Because of the insolubility of the lipoids, tubercle bacilli act as foreign bodies in the tissues. Nodular tubercle is therefore a protective and conservative process, serving to wall off the tubercle bacilli and set them apart from normal tissues—encapsulation and fibrosis—and also confine the products of the breaking down of cells within itself.

The outstanding processes in tubercle formation are the multiplication of the fixed cells, particularly the epithelioid (connective tissue) type, and the formation of a fibrous tissue capsule. In the 90 per cent and more of tuberculous infections which do not become active it performs the function of pro-

tection successfully. Nodular tubercle evolves slowly out of the proliferation of cells in situ. The tissues form nodular tubercle around living or dead tubercle bacilli, or even nonbacterial foreign bodies, and structurally and anatomically it constitutes tuberculosis, but is not dangerous because powerless to spread unless the tubercle bacilli are living. It is a reaction to the *lipoids* of the bacilli.

With the presence of tubercle bacilli in the body, as represented by the establishment of nodular tubercle, the tissues acquire a new and added method of reacting to tubercle bacilli. This new capacity of tissue reaction is to the *proteins* of the tubercle bacilli, and the changed condition of the tissues is called *tissue allergy* or *tissue hypersensitiveness*, the reaction elicited being the *allergic reaction*. The allergic reaction brings about diffuse tissue changes—those of acute inflammation.

(The phenomena of allergy are best demonstrated by the intracutaneous inoculation of a guinea-pig with virulent tubercle bacilli. In the normal (non-allergic) animal there is a slight inflammation at the site of inoculation, which subsides in a few hours. About the seventh day a papule appears, which develops into a well-defined nodule about the fifteenth day, and is followed by ulceration. In the previously infected (allergic) guinea-pig the initial inflammation persists and increases for several days. Nodule formation takes place in four to five days, being fully developed by the tenth day. If the dose be sufficiently large, necrosis and ulceration take place in two to four days after inoculation. These phenomena are the basis of the tuberculin reactions.)

(It has been shown² that allergy exercises a striking effect on the rate of dissemination of tubercle bacilli. Following their intracutaneous injection into normal guinea-pigs, the regional lymph glands are involved in twenty-four hours or less. In the allergic guinea-pig most of the bacilli are permanently fixed at the site of inoculation because of the prompt inflammatory reaction, and the glands are not involved for at least four days. C. C. B.)

CHARLES C. BROWNING.

THERE are few situations which the physician has to meet that so tax his therapeutic ingenuity as laryngitis in a patient already burdened by a long and wearing battle with lung tuberculosis.

Homer van Horne¹ lays great stress on the use of voice rest in the treatment of this most distressing complication.

"The most important measure to be insisted upon," he says, "is absolute voice rest from the beginning and regardless of the extent of laryngeal involvement.

Absolute voice rest does not mean merely refraining from using the spoken voice; it means silence. Whispered words are often as great a strain on the larynx as the spoken voice and sometimes more so.

Such patients are apt to be loquacious and they

5. Bassler, A.: The Use of the Duodenal Tube, etc., South. Med. Jour., January, 1919, XII, 4-7.

1. Allen K. Krause, Associate Professor of Medicine and Director Kenneth Dows Laboratories, Johns Hopkins University; Editor, National Review of Tuberculosis; Associate Editor, Journal of the Outdoor Life (address on the Anatomical Structure of Tubercle from Histogenesis to Cavity before the fifth conference of the International Union Against Tuberculosis at Washington, October 1, 1926).

2. Willis: Am. Review Tb., 1925, XI, pp. 427, 439.

1. Some observations upon the treatment of laryngeal tuberculosis. U. S. Veterans' Bureau Medical Bulletin, November, 1926, p. 1027.

must be cautioned not only against speaking, but against whispering as well, and supplied with paper and pencil with which to communicate with their attendants.

The successful treatment of tuberculous laryngitis requires that the condition should be recognized early. As in all tuberculous manifestations, a late condition is often an incurable one and a constant watch must be maintained in all patients with lung tuberculosis to make sure that the earliest involvement of the vocal cords shall be recognized and combated.

In addition to voice rest, cleansing sprays and local anesthetics are of value for advanced ulcerative laryngitis.

Heliotherapy is of great value, but the dose of sun rays must be as carefully controlled as the dose of tuberculin if a good effect is to be produced. Great care must be used that the period of insolation does not produce too great reaction and that sufficient time elapses before the next exposure for the reaction to subside.

Blocking the superior laryngeal nerve in those patients whose severe pain prevents swallowing is simple and, I believe, should be tried in all patients in whom other means fail to overcome the painful deglutition. It is successful in only 50 per cent of cases in which it is attempted, but relief is wonderful when the nerve can be located and anesthetized.

Another procedure that often relieves the pain of swallowing is for a trained person to stand behind the patient and at the moment of swallowing to make firm and even pressure forward on the angle of the jaws.

Or the patient may take the so-called Wolfenden's position while eating. That is, he lies prone upon the bed with his head hanging over the side and sucks his nourishment through a tube from a glass placed on the floor.

Too often the progress of the disease cannot be controlled when it is discovered late, but the most distressing symptom, pain on swallowing, can usually be relieved in whole or in part by the use of some of these measures.

LEWIS SAYRE MACE.

THE Veterans' Bureau and Tuberculosis— Regulation No. 150 by the United States Veterans' Bureau relative to the rating of disability from arrested tuberculous disease states that "an ex-service person shown to have had a service-connected tuberculous disease of a compensable degree, who is found to have reached a condition of complete arrest of his disease, will receive compensation of not less than \$50 per month." Inasmuch as it is still possible for an ex-service person to obtain compensation for tuberculous disease not previously service connected, provided he or she obtains affidavits from physicians stating that such disease existed in an active form prior to January 1, 1925, this regulation should possess some interest for physicians.

When approached for an affidavit of this type one should bear in mind that he may be dealing with an individual anxious to have a diagnosis of tuberculosis. This is exactly the reverse state of

mind of the ordinary private or clinic patient. It is also well to remember that in the desire to make diagnoses of tuberculosis early one is sometimes tempted to give this diagnosis on insufficient evidence. Thus a slight elevation of afternoon or evening temperature without other discoverable cause is sometimes the only basis for a diagnosis of tuberculosis.

Loose diagnoses of this sort, always deplorable, are particularly damaging in ex-service people. It not only tends to produce an undesirable psychic state in the patient, but may work a grave injustice to the government. The latter, particularly, since the issuance of regulation No. 150 assures a degree of permanent disability not previously existent.

Another point which should make one careful in this matter is the well-known fact that a negative physical examination and roentgenogram may not justify the most skillful observer to state that true tuberculous disease never has existed.

In general, in dealing with questions of this sort it would seem wise to apply the criteria of the Saranac group that one or more of five major points are necessary in diagnosing true clinical pulmonary tuberculosis: 1. Sputum positive for tubercle bacilli. 2. A *substantiated* history of hemoptysis of a drachm or more without other discoverable cause. 3. Pleurisy with effusion or a *substantiated* history of dry pleurisy not occurring during an epidemic of respiratory disease. 4. The characteristic rales of pulmonary tuberculosis. 5. Parenchymatous lesion by x-ray.

To which might be added: spontaneous pneumothorax without other discoverable cause.

SIDNEY J. SHIPMAN.

If all illness is to be carried without question by the community, it will often be very hard to decide just where health stops and sickness begins. Few are 100 per cent ill, and none of us are 100 per cent well. Every doctor knows that in hard times especially, a differential diagnosis has often to be made between sickness and unemployment, or sickness and imagined sickness, or sickness and a chronic disinclination for work, or sickness and some complex of circumstances that sickness would provide a welcome escape from. It is wonderful what persistence and ingenuity will do in establishing a malingerer as a public charge. Men of not much health, but plenty of "gumption" will work every day, while men of better health but less "gumption" have meals served them in hospital wards. The work of the world is done by people less than 100 per cent well and always has been.—*Canad. M. A. J.*

In the face of ubiquitous talk about the lengthening of the span of life, Doctor Nicoll does well to remind us that it is the maintenance of health, rather than mere longevity, to which we should aspire. Life itself is worth little when our usefulness has ceased. By making health, rather than sustained existence, our goal we build not only for a longer life, but for a fuller and richer one as well. This is the ultimate ideal of public health.—*New York Med. Week.*

The medical profession is a combination of individuals having marked energy, considerable ability, and good average educational attainments. We have accomplished much in the past few decades, and in the years to come there is no doubt we shall continue to drive forward and become more efficient through the inspiration of the men who are to be our leaders.—*Medical Standard.*

MEDICAL ECONOMICS, ORGANIZATIONS AND AGENCIES

All over the United States there comes the cry from the ranks of the regular medical profession of the tendency toward state medicine and of the infringement of state medicine upon the rights and privileges of the individual doctor. That this condition actually exists admits of no denial. The situation must be faced and some remedy for it devised.—J. Shelton Horsley, *Virginia M. J.*

By the extension, through the World War Veterans' Act of 1924, of the privilege of hospitalization and medical and surgical care to all veterans of all wars since 1897, no matter what may be the nature of their disabilities and without regard to their origin, nearly five million men were potentially pauperized at a single stroke. Here we have a federal government not only planting the germs of State Medicine in our body politic and entering directly into competition with private practitioners and private hospitals, but embarking on a course of paternalism that is bound to foster a flabby and spineless citizenship, which may prove to be the seed of national decay.—Leslie L. Bigelow, *W. Virginia M. J.*

"I recommend that the Board of Registration in Medicine be given discretionary powers to pass upon the qualifications of medical schools so as to protect our citizens from unqualified practitioners. I further recommend an increase in the penalty for illegal practice. Persons found guilty of this offense have resumed the practice of medicine. An increased penalty will have a deterring effect."—From the message of the Governor of Massachusetts to the 1927 Legislature.

Massachusetts is building a new and enlarged antitoxin laboratory to furnish toxins and antitoxins free to all citizens. Its services will be available alike to all doctors of medicine.

There are two chief ways to make medical paupers: furnish free medical attention to people who are able to pay the regular or a moderate fee thus destroying their sense of independence; or charge them fees beyond their ability to pay. The patient who is able to pay a moderate fee, but who through fear of an excessive one is driven to a free clinic is prone to conclude it is useless in the future to make any provision to pay for medical services. Furthermore he encourages his neighbor of similar or even better circumstances to follow his example.—S. D. Van Meter, *Colorado Med.*

Chicago Department of Health: Report for 1923-24 and 1925, by Herman N. Bundensen, Commissioner.

This book of some 900 pages is a remarkable document differing in the manner of presentation of relevant matter from the usual formal uninteresting method usually characteristic of public documents. For this all readers will be thankful.

Since W. A. Evans, a former commissioner, initiated the policy of utilizing publicity as an agency of public health, Chicago has employed this weapon more effectively than any other great urban center with which we are familiar.

The most interesting feature of the book under review is the explanation of the methods by which this form of propaganda has been developed. That it, as well as the more usual procedures, has been used to advantage, seems to be justified by a mortality rate in the second largest American city of a little over eleven.

Another striking feature of the book is the frank revelation of the enormous extent to which the official public

health service has taken over the private practice of personal health medicine.

One might easily gather from reading the report that the government was the chief, if not the only, factor engaged in saving lives in that vast city; but we suspect that personal health doctors there, as elsewhere, had quite a lot to do with comforting and prolonging the lives of quite a few of the citizens.

Like most government documents, it deals largely with the history of things long since cold or forgotten, and for some curious reason fails to cover the period of time in which people are still interested.

The Travers Surgical Company have extended their well-known service to doctors by opening a store at Fresno, this in addition to the stores at San Francisco and Oakland. The Fresno store is located at 1534 Van Ness Street, and is in charge of Mr. George Miller and Mr. William Bryant. The same high-class service will be rendered in this new store that characterizes the Travers Company's stores elsewhere.

Revised Statistical Methods—A step has been recently taken by the San Francisco Department of Public Health, writes W. C. Hassler, Health Officer, which, given the cooperation of all physicians of this city, will mean much in both the fields of medical research and public health administration. That step is the installation and use of electric tabulating machines for recording births and deaths.

This will make available to physicians and officials of the department an infinite variety of data for studies of natality and mortality, for all the data contained on the certificates is punched upon cards from which any combination of the data may be obtained. Studies by age, sex, nativity, place of death, contributory cause of death, duration of the disease, etc., will be made for each disease and will cover a long enough period of time to insure sufficient cases being analyzed to make the results and the conclusions therefrom reliable. One feature of the studies will appeal especially to physicians—they will be made by assembly districts, so the incidence of fatal diseases may be localized geographically, as well as by sex, age, occupation and, so far as possible, by nationality.

In order that this data and the studies made from it be of the greatest possible accuracy and value it is desired that physicians cooperate to the fullest extent by giving complete accurate answers on birth and death certificates. The health department particularly desires the duration of the disease causing death and the home address of the mother in deaths of very young children and of stillbirths.

Stillbirths are also being studied most carefully in the hope that their incidence may be reduced. For this reason it is asked that the causes of the stillbirth and the approximate age of the fetus be given in each instance.

Service, a word which has been given real meaning by the accomplishments of medicine since the days of Francis of Assisi a thousand years ago, has become almost a byword engendering suspicion in these latter days when it has been so freely adopted by industry to stimulate consumption. Preceded by the magic word "social," it has become a kind of sugar-coated pill through which well-meaning or designing uplifters, volunteer or professional, narcotize the thought-processes of the charitably minded or the taxpayer into the acceptance of programs which look well enough on their face, but which often enough are full of unappreciated evil potentialities.—Leslie L. Bigelow, *W. Virginia M. J.*

Success is to man an ever receding goal, and by his own measurement too seldom attained. In the eyes of others he may have succeeded, enviably succeeded, but to himself the attainment of today has no longer the value of yesterday. His goals are shifting, his values changing, and his horizon broadening. The spirit of unrest is upon him while larger rewards are still visible and he must keep his nose to the grindstone, his foot on the treadmill so long as ambition draws from before and necessity pushes from behind.—*Boston M. and S. J.*

CALIFORNIA MEDICAL ASSOCIATION

W. T. McARTHUR, M. D.....President
PERCY T. PHILLIPS, M. D.....President-Elect
ROBERT V. DAY.....Vice-President
EMMA W. POPE, M. D., San Francisco.....Secretary and Associate Editor for California

ANNUAL MEETING

The annual session of the California Medical Association will commence this year on Monday, April 25. Northern members may motor down with their families on Saturday or Sunday or go by train or boat. Those going south by train or boat may take advantage of the appended schedules of rates and time.

Headquarters are to be at the Los Angeles Biltmore Hotel, Fifth and Olive streets, Los Angeles. All members who intend to attend the 1927 meeting should make their hotel reservations early with Mr. Michael A. Reardon, office manager of the Los Angeles Biltmore, who will confirm such reservations direct with the physician. The state office handles no reservations whatever. The rates are as follows: (Each and every room has its own bath.)

Single rooms: \$5 to \$8.
Double rooms: Equipped with twin beds, \$8 to \$12.

Convention Rates

The question of securing a convention rate on the Southern Pacific lines was considered by the Executive Committee. It was pointed out that round trip tickets sold on Friday, Saturday and Sunday from all points in California and on every day of the week from San Francisco, Oakland, Alameda and Berkeley will be *lower* at the date of the annual meeting than the convention rate ticket. Therefore, only those members leaving for the Los Angeles meeting later than Sunday from points other than San Francisco, Oakland, Alameda and Berkeley would be benefited by an Identification Certificate ticket.

After consideration, it was the sense of the Executive Committee that the number of members who might avail themselves of such a rate would be too limited to warrant the printing and handling of convention rate tickets.

Below are scheduled the round trip ticket on the Southern Pacific and on the Los Angeles Steamship Company:

Southern Pacific Rates and Time Table

| | |
|--|---------|
| Members who want to secure advantage of party rates should communicate with Mr. C. E. Paine, Southern Pacific Passenger Agent, 49 Geary Street, San Francisco. | |
| Sixteen-day ticket..... | \$25.00 |
| Three-months' ticket..... | 30.00 |
| Identification certificate..... | 25.56 |
| Party rate of 15 to 99 going on same train and returning individually within fourteen days..... | 22.75 |
| Party of 100 or more going on same train, and returning individually within fourteen days..... | 17.05 |
| Lower berth..... | 4.50 |
| Upper berth..... | 3.60 |
| Compartment..... | 12.75 |
| Drawing room..... | 16.50 |

THIRD AND TOWNSEND STREETS

Lark—Leaves San Francisco 8 p. m., arrives Los Angeles 9:25 a. m. Leaves Los Angeles 8 p. m., arrives San Francisco 9:30 a. m.

Sunset Limited—Leaves San Francisco 6:15 p. m., arrives Los Angeles 8:10 a. m. Leaves Los Angeles 6:15 p. m., arrives San Francisco 8:10 a. m.

Coaches—Free observation. Leaves San Francisco 7:45 a. m., arrives Los Angeles 7:45 p. m. Leaves Los Angeles 7:45 a. m., arrives San Francisco 7:45 p. m.

Parlor Car—Leaves San Francisco 8 a. m., arrives Los Angeles 10:45 p. m. Leaves Los Angeles 8 a. m., arrives San Francisco 10:45 p. m.

FERRY BUILDING

Owl—Leaves San Francisco 6 p. m., arrives Los Angeles 8:50 a. m. Leaves Los Angeles 6 p. m., arrives San Francisco 8:50 a. m.

Padre—Leaves San Francisco 8:20 p. m., arrives Los Angeles 9:35 a. m. Leaves Los Angeles 7:45 p. m., arrives San Francisco 9:30 a. m.

SACRAMENTO

Leaves Sacramento 5:30 p. m., arrives Los Angeles 8:30 a. m. Leaves Los Angeles 6:05 p. m., arrives Sacramento, 9:10 a. m.

Los Angeles Steamship Company

Los Angeles Steamship Company, 685 Market Street, San Francisco. Telephone, Davenport 4210.

Return trip \$25. Fare includes berth and meals.

Yale or Harvard—Leaves San Francisco, Pier 7, 4 p. m., Friday and Saturday, April 22 and 23, arrives at Los Angeles, Pacific Electric Station, Sixth and Main streets, 11 a. m. the next day. Leaves Los Angeles, Pacific Electric Station, Thursday, Friday and Sunday, April 28 and 29 and May 1, at 3 p. m. the next day.

CONTRA COSTA COUNTY

An interesting but poorly attended meeting was held by the Contra Costa County Medical Society, January 29, 1927, at Richmond. J. M. McCullough of Crockett presided.

A very instructive paper on "Head Pains" was given by J. S. Baxter of Oakland.

A motion sanctioning a goiter survey of the high school children of this county by Hans Lissner of San Francisco was passed unanimously.

Doctor Rowell of Crockett moved a resolution be passed opposing the curtailment of teaching of evolution. The resolution read:

"Resolved, That the Contra Costa County Medical Society expects its representatives in the legislature to definitely oppose any proposed legislation limiting the teaching of science in any of its branches."

The resolution was unanimously passed.

Among those present were Leo R. Bell and Eric E. Larson of the Woodland Clinic. Doctor Bell spoke with interest and enthusiasm of the Clinic work. The society was pleased to have these visitors and hopes to have them again.

Refreshments were enjoyed after adjournment.

S. N. WEIL, Secretary.



MERCED COUNTY

Merced county physicians met at El Capital Hotel for the regular meeting of the Merced County Medical Society. George K. Rhodes of the San Francisco City and County Hospital was the speaker. F. O. Lien, president, was in the chair.

Following the talk by Doctor Rhodes, the members joined in a discussion of medical problems. The next meeting will be held on the west side, probably in Dos Palos.
H. KYLBERG, Secretary.

PLACER COUNTY

The Placer County Medical Society held its regular meeting in the Masonic Hall, Auburn, February 12, 1927, being called to order by President J. A. Russell.

The following members and visitors were in attendance: Members—J. A. Russell, G. H. Fay, R. J. Nicholls, F. L. Fanning, C. J. Durand, R. H. Eveleth, E. E. Myers, M. E. Thoren, W. L. Whittington, R. F. Rooney, R. A. Peers, M. Dunievitz, C. E. Lewis, L. B. Barnes. Visitors—T. C. O'Connor, W. Wheeler, F. F. Gundrum, N. G. Hale, W. M. Miller, C. C. Briner.

C. Conrad Briner and Monica Stoy Briner of Lincoln and William M. Miller of Auburn were elected to membership in the society.

The following program was presented: First: Address by F. F. Gundrum on "Pernicious Anemia." Second: A case report by C. J. Durand on attempted artificial pneumothorax of left lung with occurrence of pneumothorax in the contralateral lung. Third: Address by Nathan G. Hale on "Chronic Prostatitis and Prostatic Hypertrophy." The program was of a high order of merit and was well discussed by members present.

Following the conclusion of the program the secretary, on behalf of the Placer County Medical Society, presented to Robert F. Rooney, dean of the medical profession of this section of California, a humidor containing a box of his favorite cigars. Doctor Rooney graduated from McGill University in March, 1870, and has been in active practice since that time. He has practiced in Placer County since 1878, and during his more active years of practice was one of the most prominent physicians in northern California. He was president of the Medical Society of the state of California for two years, 1905-6 and 1906-7. Doctor Rooney made a brief reply stating some of the incidents of his long years of practice and thanking the society for their gift.

Following the presentation a banquet was held in the Sather Grill.

ROBERT A. PEERS, *Secretary*.



SACRAMENTO COUNTY

A splendid attendance of forty-eight greeted our new president, Robert N. Bramhall, at the January meeting. We met in the Empire Room of the Sacramento Hotel on the 18th. The minutes of the November meeting were read and approved.

Case Report—Gundrum reported the finding of a well-developed case of exophthalmic goiter in a Japanese male, aged 28.

Bramhall introduced J. J. Sippy, Health Officer of San Joaquin County, who spoke on the subject, "Results of Toxin-Antitoxin Administration in San Joaquin County." Before approaching his subject, Sippy pointed out the untold values that would result from contact with our sister city physicians, which could readily be made through the medium of intercity medical meetings. Then to his subject.

Following Nothnagel, the speaker resuméed the four distinct periods in the diagnosis and treatment of diphtheria. By means of concise charts the relative percentages of those immunized against diphtheria in the San Joaquin district was shown. These charts included the work done during the last four years. In the same way these charts showed the relative number of reported cases, isolated cases and fatalities during that same night.

This work with toxin-antitoxin administration was confined to children under 10 years of age, and was grouped, first, to those up to 5 years of age, and, second, to those between the age of 5 and 10. A summary showed that up to December, 1925, toxin-antitoxin had been given to 12 per cent of the population under 5, and to 85 per cent of the population between 5 and 10. As a result the reported cases, the isolated cases and the fatalities in the group between 5 and 10 have shown a tremendous diminution, and are now well below the level for the state. Though this rate has also diminished for those under the age of 5 (and this is also below the level for the state), it is quite apparent that it is in this group that the health officer finds his most difficult task. So it is, that Sippy

makes a special appeal to those men who can readily reach the child of preschool age. He closed by charging the family physician to advocate the use of toxin-antitoxin, to educate the family as to its value and, lastly, to render this service by charging a fee which is not a burden to the family.

Walter W. Cress, City Health Officer of Sacramento, read the second paper of the evening. The title was "Public Health as It Concerns the Profession."

Cress reviewed the well-known fact that for years the profession has been interested in the treatment of disease rather than its prevention. He carries this one step farther, to the extent that he believed that, locally, this same condition still prevailed to a great extent. This particular lack of cooperation and, certainly, spirit of indifference is definitely shown in the lack of reporting of communicable diseases in this city. Two instances: though there were 136 deaths from pneumonia during the last year, there were only 130 reported in the whole city. Further, there were 365 venereal cases reported from a clinic, while only forty-eight privately treated venereal cases were reported, and these reports came from sixteen doctors.

What is the result? This indifference is the direct road to State Medicine. In fact, State Medicine is here in the guise of Social Medicine: The Industrial Accident situation, the fact that 2 per cent of the population of the whole country became entitled to free medical service by a stroke of the pen, signing the recent Veterans' Act, showing the trend toward State Medicine. Highly endowed state and city hospitals now definitely compete with private institutions. Cress pointed out the most ludicrous situation existing in Sacramento—here, where one in six owns his automobile, 70 per cent of the hospital beds in the city are free beds.

Cress concluded by proclaiming that unless this lack of interest was immediately eliminated, it would mean that health departments would take over more and more work.

The papers were discussed by Gundrum, G. J. Hall, Hale, Hanna, Soutar, Christian, Topping, Wilder, Drysdale, and Dillon. The question of organized social service, the possibility of the necessity for the public care of tuberculosis and syphilis; the need to "sell" the profession the need for immunization before the education of the public; the question of what value statistics on gonorrhea were at the present time; the possibility of presenting the same subject before various women's clubs and the work being done along immunization lines in the outlying portions of the country were all discussed. The discussion was closed by Sippy and Cress. Sippy's method of handling the immunization problem in his district is that of a "card method" entirely. In that way the educational program continues satisfactorily and he is enabled to stay out of the newspapers. This automatically prevents a certain amount of antipathy. Cress offered the opinion that he believed this state would follow the lead of Florida in removing the quarantine on smallpox. In this way the need for vaccination would vividly strike the public.

The application of Louise M. Igo-Flitcroft was given its routine first reading.

The report of the Board of Directors included the following: E. M. Shivley of Fair Oaks has been supplied with duplicate applications for membership. The A. M. A. questionnaire, regarding a home for indigent physicians, has been answered. The board requested that the report on the Council on Goodale's Physicians and Surgeons Insurance Corporation be presented to the society in full. Leo P. Bell's transfer application to the Yolo County Medical Society was officially presented, and the transfer application of Frank Y. Kitsuda from the Alameda County Medical Society was unanimously received.

Communications—A note was received from W. M. Miller requesting his transfer to the Placer County Medical Society. The Council's committee report on Goodale's Physicians and Surgeons Insurance Corporation was presented in full. Under new business, a motion was carried recommending that our society go on record as being in full agreement with the committee's report.

An agent of the Sacramento *Union* had asked permis-

sion of the society to list those men wishing advertising cards under the caption of "The Sacramento Medical Society." It was moved by Wilder, seconded by Gundrum, and carried that this be granted.

The secretary reported that the police would recognize properly labeled automobiles, as in the past.

The president reported that the Program Committee for the coming year has G. N. Drysdale for its chairman. The other members are James R. Snyder and A. K. Dunlap.

The meeting adjourned to a buffet lunch.

BERT S. THOMAS, *Secretary*.

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SAN DIEGO COUNTY

San Diego County Medical Society—January 29, Doctor Spear of the Naval Hospital and his staff acted as hosts to the Medical Society and gave an excellent exposition of the tuberculosis problem, F. M. Pottenger of Monrovia discussing the medical side and C. D. Lockwood of Pasadena presenting the surgical aspects of this ever-present problem. A large attendance enjoyed this excellent program, after which a social hour was spent in the lunch room.

At the January meetings of the local hospitals the following staff officers were elected:

San Diego County General Hospital—H. A. Thompson, president; W. D. Rolph, vice-president; W. M. Alberty, secretary.

Mercy Hospital—L. H. Redelings, president; Frank L. Carter, vice-president; W. W. Russell, secretary; J. D. Bobbitt, member of Executive Committee.

Scripps Memorial Hospital—James W. Sherrill, president; W. H. Potter, vice-president; W. L. Garth, secretary.

President M. C. Harding of the Medical Society announces the following appointments for 1927:

Editors of Bulletin—Robert Pollock, Geistweit.

Councilors-at-Large—Cordua, D. K. Woods.

Membership—Bobbitt (chairman), Molitor, Barclay.

Child Welfare—Mahan (chairman), W. H. Newman, Marjorie Potter, Lesem, Mühl.

County Hospital—A. E. Elliott, Weinberger.

Medical-Legal—Donnell (chairman), J. M. McColl, Hoffman.

Program—Fox (chairman), Kinney, Churchill.

Directory—Will Potter, Welpton, Grant.

The following constitute the officers elected for the San Diego Medical Library for 1927:

W. S. Kyes, D. D. S., president; H. G. Lazelle, vice-president; Willard H. Newman, secretary-treasurer.

Library Directors—J. C. Dement, F. S. Emery, D. D. S.; M. C. Harding, W. S. Keyes, D. D. S.; E. C. Lee, H. G. Lazelle, E. B. Porter, Robert Pollock, C. E. Rees, Harvey Stallard, D. D. S.

Beginning January 18, and lasting throughout the week, the annual medical lectureship course this year was delivered by William McKimm Marriott, Dean of Medicine at Washington University, St. Louis. The first lecture followed the dinner at the Cabrillo Café given in his honor by the Medical Society, and was devoted to an understanding of the principles, symptomatology and treatment of acidosis in its various clinical relations. Doctor Marriott has the happy faculty of stating essential facts in a clear and interesting way that reaches and holds his audience. A well-modulated voice and a commanding presence add to the impression that one is listening to an authority.

The impression given the first evening was strong enough to insure him a full house each succeeding night at the Mercy Hospital auditorium, where the meetings were held. His second lecture was on the subject of alkalosis, to which he gave a vivid interpretation that was enlightening to many. On the third and fourth evenings he discussed the modern physiology of digestion and the broader meanings of metabolism, including what we actually know regarding the endocrine glands and their influence upon body metabolism. At the last lecture, Satur-

day night, which was greeted by a large attendance, he discussed some of the higher problems of biologic chemistry and brought to a close what will long be remembered as a valuable graduate course in the field of body chemistry and physiology, normal and perverted.

After the society's monthly dinner, February 8, H. C. Naffziger of San Francisco spoke on the subject of "Head Injuries." He put emphasis on selecting the proper time for surgical interference, saying that most conditions permit of waiting until the primary shock has subsided before surgery is demanded. Keeping the patient at rest and using all measures to relieve shock are the first considerations. The various techniques of surgical operations on the skull were discussed in detail. He placed diagnostic emphasis upon the gravity of cerebral injuries when the pulse pressure exceeded the pulse rate. The lecturer covered his field so completely that no discussion was invited.

ROBERT POLLOCK.

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SAN FRANCISCO COUNTY

At the January meeting of the Eye, Ear, Nose, and Throat Section of the San Francisco County Society Wilbur F. Swett read a paper entitled "The Value of Threshold Tests." He demonstrated an apparatus for determining the sensitiveness of the color-perceiving visual sense and showed its application in differential diagnosis. Discussion by Cordes, Obarrio, Hans and Otto Barkan.

Robert Martin's paper was entitled "Sinus Disease in Children." There has been a recent awakening in the study of these conditions, and many cases of asthenia, sepsis and nephritis in children have been relieved by eradication of these foci of infection. In his experience medical treatment has usually been sufficient.

William Palmer Lucas discussed the subject from the standpoint of the pediatrician, and Arbuckle of St. Louis and Wallace Smith spoke of the clinical diagnosis and treatment. Robert Newell mentioned points in x-ray diagnosis.

ROBERT STEELE IRVINE.

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SAN JOAQUIN COUNTY

The stated meeting of the San Joaquin County Medical Society was held February 3, 1927, at the local Health Center, 129 South American Street. Twenty-three were in attendance. V. H. Podstata of San Francisco was guest and speaker of the evening.

The meeting was called to order by J. W. Barnes, president, at 8:30 p. m. The minutes of the previous meeting were read and approved.

The committee on admissions reported favorably on the application for membership of Charles E. Stanger. In accordance with the constitution, the Chair declared C. E. Stagner duly elected an active member of the society.

The report of the Committee on Industrial Medicine of the California Medical Association relative to the proposed plan of the Physicians' and Surgeons' Insurance Corporation, sponsored by George W. Goodale, was read.

Action—Moved by George H. Sanderson, seconded by B. J. Powell, that in accordance with the findings of the Committee on Industrial Medicine of the California Medical Association, the San Joaquin County Medical Society considers it unethical for any of its members to become associated with the Physicians' and Surgeons' Insurance Corporation as outlined in the plan by George W. Goodale. Carried.

The secretary was instructed to mail a copy of the report of the committee and the resolution passed by the society to each member of the San Joaquin County Medical Society.

The president presented V. H. Podstata, who spoke on the subject "Newer Sedatives and Hypnotics." The doctor considered briefly the various conditions which cause us to think of sedatives and hypnotics. He enumerated the following conditions, which frequently call for relief, and in which sedatives or hypnotics are indicated:

1. Pure sadness or depression with mental pain; the

patient is usually silent. 2. Emotional tension: where the patient may not even be conscious that he is under strain. 3. Anxiety: is a combination of sadness plus tension. Anxiety is not likely to be missed by the physician, as the facial expression and general attitude of the patient is so very characteristic of this condition. 4. Despair: a combination of anxiety plus agitation and excitement. The patient feels impelled to do something. Suffers intense mental pain, there is an inhibition of ideas, and paucity of thought. Sadness with agitation is the typical picture of involution melancholia. In this mental state there is a strong impulse to act, a great tendency to self-destruction. 5. Anger: is explosive in character, a paradoxical mixture of feelings, plus the impulse to react. 6. Exaltation, elation plus excitement, with increased mental activity and psychomotor restlessness. The patient cannot keep still, talks, raves, dances, and cannot sleep. 7. Excitement: the result of drugs such as alcohol, cocaine, and the like. In these there is cerebral excitement and physical restlessness, and everlasting impulse to activity. The patient is often bright and alert. In morphin there is quiet contentment. Patient rests mentally and physically. 8. Drug craving, hyperthyroidism, and sex excitement often call for relief by sedatives.

Hypnotics are called for in sleeplessness from physical pain, mental pain, psychomotor excitement, psychic excitement, high nervous tension, cerebral anemia, cerebral hyperemia, toxic condition of various kinds, drug craving and, at onset, of various mental disorders; this last condition should be recognized early and every effort made to put the patient to sleep. A good sleep at the onset may prevent the development of the psychosis.

In speaking of the newer remedies the doctor stated that he did not wish it to be understood that he ignored the old or minimized such measures as hydrotherapy, psychotherapy and others, all of which are of inestimable value when correctly used.

Of the bromides series the doctor named adalin, brometone, bromipin, and sabromin; they are excellent sedatives; their indications are the same as for bromides; they are not likely to disorder digestion or to produce skin eruptions. Bromipin is supposed to have more lasting effect than bromides. The absorption of sabromin is slow and the elimination is also slow.

Adalin is given in 5 to 10 grains, in cold water. Brometone is the result of the reaction of acetone on bromoform; the dose is from 5 to 10 grains. Bromipin is a solution of sesame oil containing about 10 per cent of organic bromide. Dose 1 fluid dram. Sabromin may be given in doses of 5 to 20 grains.

Of the benzyl series, benzyl benzoate dose 2 to 20 grains, benzyl fumarate 5 to 20 grains. These are antispasmodics rather than direct sedatives, and act chiefly on unstripped muscle fibers. They relieve intestinal spasms quickly and do not upset the stomach. Ephedrin hydrochloride prepared from Ma Huang, known to the Chinese for over five thousand years, is a good drug. Its action is more lasting than adrenalin. Dose per mouth $\frac{1}{2}$ to 2 grains. Asthma of the idiopathic type will yield quickly to ephedrin. It acts on smooth muscle fibers. It is a very expensive remedy which is one of its chief drawbacks for general use. Aspirin in doses of 5 to 10 or even 15 grains is a splendid remedy, especially in physical distress and pain. Pyramidon in doses of 5 to 10 grains is an excellent drug to use for pain; combined with small doses of codein it is very effective. Of the newer opium series, pantopon in doses from $\frac{1}{12}$ grain to $\frac{1}{3}$ grain is preferable to morphin; there are fewer after effects and it does not lock up the secretions. Dionin or ethyl morphin hydrochloride in doses of $\frac{1}{4}$ to 1 grain is an excellent remedy for use in the treatment of drug addicts; splendid as a remedy to taper off. Pain and irritation whether physical or mental call for opiates. Tincture opii is a most valuable remedy in sadness, agitated depressions, and involution melancholia. Scopolamin or hyoscin is indicated in motor excitements and irritations of the lower motor neurone. For the rigidity and tremor in paralysis agitans, hyoscin in small, frequently repeated doses, is the best remedy. Of the barbituric acid series veronal, luminal, allonal, and neonal are the favored remedies. Luminal is a powerful drug; do not use above 2 grains or 3 grains at most. Large doses must be used with extreme caution.

It is likely to produce stupor, headaches, and dizziness. It is by far the best drug for epilepsy, and when combined with small doses of bromides the results are often remarkable. It does not cure, and must be used continually. Neonal is very soluble and readily absorbed. It produces sleep, but is not used for that purpose. It acts with telling effect in some cases of epilepsy and anxiety neurosis, as it relaxes the patient. Neonal combined with pyramidon is an excellent remedy for neuralgia and in colds. Luminal and neonal are the best remedies in drug craving. Cerebral anemia may call for cardiac stimulants. In sex excitement monobromide of camphor and salicylic acid series are good. The doctor urged careful history taking, as psychoses are frequently ushered in with a period of sleeplessness and every effort should be made to put the patient to sleep and induce rest; by so doing, an attack of complete mental breakdown may frequently be prevented.

The members asked many questions which the doctor answered in a very instructive and practical manner.

There being no further business the meeting adjourned at 10 p. m.

F. J. CONZELMANN, *Secretary*.



SANTA BARBARA COUNTY

The regular meeting of the Santa Barbara County Medical Society was held at the Cottage Hospital on Monday evening, December 13, at 8 o'clock, with President Henderson in the chair. There were present twenty members and five visitors.

Prior to the reading of the papers, Doctor Lewis made an urgent appeal to the membership of the society to take a more active interest in the American Association for Medical Progress, or at least pay the dues. It was moved by Lewis and seconded by Schurmeier and unanimously carried that there be noted on the next program a request for each member to forward the dues of \$2 to the Association.

Harry Schurmeier gave a paper on "Posture and Body Mechanics," which was discussed by Lamb, Brush, Van Paing, Nuzum, and Lewis.

Hilmar Koefod gave a paper on "Jejunocolic Fistula," together with a case report. His paper was discussed by Samuel Robinson, who made diagrams on the board showing the various surgical methods of procedure, and by Nuzum.

Vandever reported five cases of bronchoscopy and gave a practical demonstration of the use of the bronchoscope. These reported cases were discussed by Lewis, Profant, Mellinger, and Means.

To make arrangements for the annual banquet, the president appointed as a committee Doctors Nuzum, Mellinger, Ullmann, Henderson, and Eaton.

There being no further business the meeting adjourned.

WILLIAM H. EATON, *Secretary*.



STANISLAUS COUNTY

On Friday, February 11, the Stanislaus County Medical Society was addressed by L. A. Emge of the Stanford Medical School. The subject was "Fertility and Sterility." He gave a splendid talk on the diagnosis and treatment of sterility. He has had wide experience and has advanced many new ideas on a subject which has been neglected in the past. Doctor Emge gave a very favorable impression, and will be asked to honor the society with another talk later on.

At the meeting Hans Hartman, H. B. Stewart, and R. A. Porter were elected to membership.

The next meeting will be held at the Women's Improvement Club, and the ladies will be invited. A special program of entertainment will be offered.

J. W. MORGAN, *Secretary*.



VENTURA COUNTY

At our annual meeting, January 25, 1927, at 7:30 p. m. at the Pierpont Beach and Country Club at Ventura, the

following were present: J. Bianchi, G. A. Broughton, W. S. Clark, and L. W. Achenback, Ventura; L. E. Schultz, B. E. Merrill, and F. E. Blaisdell, Santa Paula; J. E. Whitlow, Fillmore; H. F. Pierce and W. E. Vandevere, Santa Barbara; Councilor W. H. Kiger and C. G. Toland, Los Angeles.

After dinner Doctor Vandevere gave an illustrated talk on bronchoscopy and esophagoscopy. Doctor Kiger gave us some helpful counsel and suggestions on some of our local problems.

At the election the old officers were unanimously re-elected.

J. Bianchi was elected delegate, with B. Merrill as alternate.

The past year the society functioned better than ever, and it fully expects to surpass that record in 1927.

C. E. SCHULTZ, *Secretary*.

CHANGES IN MEMBERSHIP

New Members—Alameda County—Lynne H. Blanchard, Leland Taylor, Dorothy M. Allen, Philip J. Dick, Oakland; John Channeson, Alameda.

Butte County—John J. Sellwood, Chico.

Los Angeles County—Jean N. Andrews, Leslie C. Audrain, Harry E. Bryant, Sydney V. Kibby, Frances E. Giles, Charles William Gosney, John L. Montgomery, Jerome W. Shilling, Los Angeles.

Mendocino County—Robert T. Boyd, Fort Bragg; Suren H. Babington, Talmage.

Monterey County—Wilson T. Davidson, Rudolph A. Kocher, Carmel; Werner D. Meyenberg, Salinas.

Placer County—Samuel S. Glassman, Colfax; Ernest E. Myers, Roseville.

San Bernardino County—William T. Engleman, San Bernardino.

San Diego County—W. K. Brown, Frank C. Svoboda, Alfred J. Cooper, Olive B. Cordua, San Diego.

San Francisco County—Stuart T. Davison, Howard T. Plank, Montague S. Woolf, Carl B. Bowen, Pini J. Calvi, Clarence D. Potter, Audrey G. Rawlins, William Lister Rogers, Joseph S. Rubin, Shester H. Woolsey, San Francisco.

San Mateo County—H. Wade Macomber, Burlingame; Joseph L. Ross, Redwood City; Jewyl A. Booth, San Mateo; Herman R. Holmes, Belmont.

Santa Barbara County—Harry G. Hanze, Solvang; William E. Johnson, Santa Barbara.

Transferred—A. N. Crain, from Orange County to Yolo-Colusa County.

Leo P. Bell, from Sacramento County to Orange County.

B. H. Gilbert, from Siskiyou County to Tulare County.

Frank Y. Kitsuda, from Alameda County to Sacramento County.

L. R. Knorr, from San Diego County to Mendocino County.

John A. Jackson, from Orange County to Los Angeles County.

Resigned—Lawrence J. Bernard, from San Francisco County.

R. Cadwallader, from San Francisco County.

G. A. Charlton, from Los Angeles County.

Emmett A. Fagin, from Los Angeles County.

Walter H. Frohlich, from San Francisco County.

Deaths—Biber, Paul E. Died at Burlingame, January 19, 1927, age 51. Graduate of the University of California Medical School, San Francisco, 1903, and licensed in California the same year. Doctor Biber was formerly a member of the San Mateo County Medical Society, the California Medical Association, and a Fellow of the American Medical Association.

Garner, Robert W. T. Died at Susanville, December 31, 1926, age 44. Graduate of the Northwestern University Medical School, Illinois, 1907, and licensed in California the same year. Doctor Garner was a member of the Lassen-Plumas County Medical Society, the California Medical Association, and a Fellow of the American Medical Association.

Molony, James J. Died at San Francisco, February 9,

1927, age 58. Graduate of the Medical Department of the University of California, 1891. Licensed in California in 1892. Doctor Molony was a member of the San Francisco County Medical Society, the California Medical Association, and a Fellow of the American Medical Association.

Reynolds, Frederick W. Died at San Pedro, January 26, 1927, age 53. Graduate of the University of Southern California College of Medicine, Los Angeles, 1900, and licensed in California the same year. Doctor Reynolds was a member of the Los Angeles County Medical Association, the California Medical Association, and a Fellow of the American Medical Association.

Tower, Franklyn J. Died at Redondo Beach, February 6, 1927, age 59. Graduate of the University of Illinois College of Medicine, Chicago, 1890. Licensed in California in 1893. Doctor Tower was a member of the Los Angeles County Medical Association, the California Medical Association, and the American Medical Association.



BILTMORE HOTEL

Los Angeles

HEADQUARTERS C. M. A. MEETING

Abdominal Manifestations of Hodgkin's Disease—

In Hodgkin's disease primary involvement of the abdominal viscera is exceedingly rare. George P. Muller and Russell S. Boles, Philadelphia (*Journal A. M. A.*), report three such cases. Little is to be gained from a consideration of the symptoms in the abdominal type of Hodgkin's disease, since they are variable and may simulate a number of acute and chronic conditions. Symptoms referable to the gastrointestinal tract are usually present when the abdominal viscera are affected. Pruritus, diarrhea and the recurrent type of fever are always suggestive; jaundice, ascites and adenopathy may be present. When Hodgkin's disease is suspected, biopsy of an affected gland should be performed. The classic histologic picture of the disease is rarely wanting when the disease exists. In atypical forms, confirmatory evidence is usually supplied by frequent blood examinations; the blood picture is fairly characteristic. Hodgkin's disease of the abdominal type must be differentiated from tuberculous peritonitis, at times from typhoid, from lymphosarcoma of the retroperitoneal glands, from the splenomegalies—particularly leukemia and splenic anemia—and occasionally from splenomegaly of the Gaucher type, Banti's disease and von Jaksch's anemia. Radical surgery may be considered when the external evidence indicates that the process is chronic and nonprogressive, when some function is interfered with by pressure, and when splenomegaly persists after irradiation. In the treatment of Hodgkin's disease the best results in the way of "temporary amelioration" have been obtained by roentgenotherapy, both general and local. Such therapy should be directed primarily to the abdominal deposits. The prognosis of Hodgkin's disease is apparently hopeless.

Prohibition is the antithesis of all that makes for good government and good citizenship. When civil government ceases to be the protector of rights and undertakes to be the censor of daily habits and practices, it ceases to be a free government and becomes an autocracy.—Brigadier-General Ransom Gillette, *Medical Times*.

UTAH STATE MEDICAL ASSOCIATION

W. R. CALDERWOOD, Salt Lake.....President
 E. H. SMITH, Ogden.....President-Elect
 FRANK B. STEELE, Salt Lake.....Secretary
 J. U. GIESY, 701 Medical Arts Building, Salt Lake.....Associate Editor for Utah

WHERE IN THE WORLD ARE WE?

"*Ubinam gentium sumus!*" Cicero exclaims in one of his orations. Roughly that may be translated into the caption under which we write. Where are we at, might be another way to put it. And the question to us as bearing on what we have in mind seems apt. In the *Journal A. M. A.* for January 15, 1927, page 175, southeast corner, there appears a brief article on the present day trend as applying to physical therapy. To read this article is sufficient justification for the existence of the Council on Physical Therapy as a sort of brake on the whole machine to keep it from running wild.

Physical therapy as an adjunct to established medical and surgical methods needs no one any longer to present its brief. It is a thing which has won on its own merits, through the medium of end results. In other words it has proved itself as an available means of gaining those results. Indeed, it has won so far that it is now being popularized by some of the manufacturers of equipment among the "cults." So-called "drugless practitioners" begin to see in it a means of lining their pockets still further at the expense of their dupes. According to certain salesmen for certain outfits, physical therapy will cure anything from a tarnished reputation to the gout. Quite naturally that's all blah, but it's remarkable how many people appear to fall for it. And the worst of it is that not all the gullibility seems to be confined to the cults or the laity. The thing seems to be spreading into professional ranks.

Now, as a matter of fact, physical therapy, which actually consists in the handling of forces capable of producing, as other forces, favorable or unfavorable results, requires a certain fundamental knowledge on the part of the operator to determine what those results shall be. And only when treatment is prescribed and directed by one who actually understands the potentialities of the means employed, can such definite results be assured. Ignorance may be bliss, but ignorance in the handling of any patient's welfare is apt to be less blissful than one might anticipate. And yet, recently, individuals and even institutions within our knowledge have been purchasing physical therapy apparatus, and attempting to operate it without any competent direction or instruction. What may we predicate as a result? What one would predicate in any of the arts or trades requiring skilled training, were some one to attempt to produce the results without such training, seems almost a matter of course. An auto mechanic may be a good auto mechanic, but that does not mean that he is competent to construct a modern house. And the result will be, can hardly escape being, just one thing—a lack of consistent results of a beneficial nature, with a gradually developing loss

of confidence in the method due to wrong or undirected employment, which will bring the method undeservedly into disrepute. And yet—these means of attack on certain conditions have been consistently used abroad with good results for forty years. And if it fails of those results on this side of the water it will be because too many people are trying to use it without any primary knowledge of what they are doing beyond the fact that to start the fireworks they have to throw a switch. Consequently we are very, very glad indeed to see the A. M. A. create a body of sincere judges to go fully into the subject—weigh and appraise it on its merits, bring in such a report as they have already made in its favor, and establish a permanent organization for the standardization and regulation of its future course on a high and ethical basis commensurate with any other branch of the healing art. Toward this end we feel sure that the two major national societies with a personnel consisting of men interested in the subject will lose no opportunity to cooperate. Only in some such way as it now appears may we learn "where we are at" indeed.

SCHICKAREE

We believe that every community should have one, a "schickaree" being an active campaign for the immunization of every child of school age against diphtheria. According to reports from Millard County, they are having a "schickaree" there now, with 3483 children out of 3632 already immunized and the work still going forward as we write.

Recalling the terrible scourge diphtheria formerly constituted against childhood, we can only feel that this is a record of which to be proud, and one which every section of the state and nation would do well to emulate.

The first official use of the new lecture room in the Medical Arts Building was the regular meeting of the Salt Lake County Medical Society the night of February 14. An interesting program was given, and the members spent their time admiring the quarters which from now on will house the society meetings, thus giving the local organization a long and much desired central meeting point.

A report to T. B. Beatty, head of the State Board of Health, on inoculation of the students and preschool age children of Millard County shows that 3483 out of 3632 children had been immunized for the prevention of diphtheria.

Robert Welles Fisher, 63, prominent in the County and State Medical societies for the past thirty-seven years, died recently of pneumonia.

He was a former secretary and president of the Salt Lake County Medical Society and served as president of the Utah State Medical Association in 1912. He was professor of materia medica and pharmacy at the University of Utah from 1899 to 1914. From 1901 to 1909 he served as secretary of the Utah State Board of Medical Examiners.

Doctor Fisher was born in Reaford, Delaware, October 10, 1863. He received his degree of Ph. G. in 1887 at Philadelphia College of Pharmacy and did special work in pharmacology and surgery at Harvard in 1898. He was graduated from the Jefferson Medical College in 1890. Since that time, with the exception of the years he spent in postgraduate work, he had been practicing medi-

cine in Salt Lake and had been a member of the staff of Saint Mark's Hospital.

He served as a major in the medical corps during the World War and spent considerable time with the A. E. F. in England and France.

He is survived by his widow, Margaret Van B. Terry Fisher, and four children, Vaughan, Anna B., Polly and Robert Welles, Jr.

Stanley Clark of Provo has been appointed county physician to succeed J. Karl Beck. Doctor Clark is a graduate of the Brigham Young University and the Jefferson Medical College. He will be assisted in his work by Guy S. Richards of Lehi and Vernon F. Houston of American Fork.

The medical school at the University of Utah has received an addition to its library of thirty-six books on medicine and surgery from J. R. Parsons of Salt Lake. Miss Blanche Cooper of Salt Lake has also presented the school with ten books on pediatrics.

Among the faculty additions are Martin C. Linden, part-time instructor in surgery; Guy Van Scoyoc, instructor in physical diagnosis, and Edward E. LeCompte and R. J. Alexander, as assistants in teaching anatomy.

Salt Lake County Medical Society (M. M. Critchlow, secretary)—A regular meeting of the society was held at the Commercial Club, Monday, January 24, 1927. Meeting called to order at 8:05 p. m. by President W. G. Schulte. Forty-three members and nine visitors were present.

Minutes of the previous meeting were read and accepted without correction.

No clinical cases were presented.

A paper on "Club-Feet" was read by A. L. Heuther. He described the possible causes, types of deformity, diagnosis and treatment of the various classes of the deformity. This paper was illustrated by lantern slides. This very interesting paper was discussed by L. N. Ossman and C. M. Benedict.

The next paper was read by Ralph Tandowsky on "Preciptin Test as an Aid in the Diagnosis and Prognosis of Nephritis." He tabulated the results of his own work. He described the preparation of serum from rabbits, immunized with protein from a human nephritic kidney and described the preparation and the results obtained from using this as an antigen on one hundred patients with albumin in the urine. This interesting paper was discussed by T. A. Flood, W. R. Tyndale, Doctor Caldera, L. E. Viko, and W. G. Schulte.

The following men were elected to membership in the society: O. J. LaBarge, W. Lawrence Montgomery, James F. McGregor, Hugo Christopherson, and B. I. Burns.

Application of Grover E. Christensen was read.

W. E. Tyndale moved that Section 2, Chapter 5, of the by-laws be changed, effective January 1, 1928, to read as follows:

"The annual dues shall be \$15 and shall be payable on January 1 of each year. Members not having paid by February 1 of each year shall be considered delinquent, and their dues shall be automatically raised to \$17. Five dollars for each member shall be placed in a separate fund known as the Library Fund, which shall be used only for maintenance of the library of the society. Any member who shall fail to pay his annual dues by April 1 shall be held as suspended without action on the part of the society. A member suspended for nonpayment of dues shall be restored to full membership on payment of all indebtedness. Members more than one year in arrears shall be dropped from the roll of members." This was seconded by M. C. Lindem.

Discussed by Joseph E. Jack, L. J. Paul, Sol G. Kahn, J. A. Phipps, John Z. Brown, Ralph Tandowsky, E. Spencer Wright, L. E. Viko, and Ralph Pendleton, who moved that the proposed amendment be amended striking out the clause referring to a library fund. There was no second to this.

Report of the Auditing Committee was read.

Communication from the Ladies' Auxiliary of the Salt Lake County Medical Society was read.

February 14, 1927—The society met again in the Assembly Room of the Medical Arts Building, Salt Lake City, Utah. The meeting was called to order at 8:10 p. m. by President W. G. Schulte. Sixty-seven members and four visitors were present.

Fred Stauffer was called upon to say a few words in honor of the occasion of the first meeting of the society in the new building. The society applauded him and E. F. Root.

A. J. Hosmer read a splendid paper on "The Pathology and Treatment of Burns and Skin Grafts." The subject was thoroughly covered, and his original device for utilizing the principle of immobilization was described and illustrated by lantern slides. The case history of two patients who were treated by this method were gone into in detail.

This very interesting paper was discussed by W. N. Pugh, C. J. Pearsall, E. F. Root, J. U. Giesy, who talked on the phototherapy of burns.

Miss Irene Shields, executive secretary of the Orphans' Home and Day Nursery, talked for a few minutes on the policies and aims of the Orphans' Home.

A communication from the Telephone Company was read. C. M. Benedict moved that a committee be appointed to recommend action on the communication to the society. Seconded by L. N. Ossman. Carried. Discussion by H. P. Kirtley and E. F. Root. The Chair appointed the following men to compose the committee: H. P. Kirtley (chairman), E. F. Root, and John Z. Brown.

Grover E. Christensen was elected to membership.

A communication from Press Bancroft, General Agent, Southern Pacific Lines, was read.

Adjournment at 10:50 p. m.

M. M. CRITCHLOW, *Secretary*.

NEWS

Southern California Medical Association—The seventy-sixth semiannual meeting of the Southern California Medical Association will be held at the Elks' Club in Redlands, March 18 and 19.

Casa Loma Hotel will be the headquarters, and it is suggested that those planning to attend make reservations early, as that is the busy time for the hotels in Redlands.

Rea Smith, Ray Taylor, Guy Cockran, Hugh Berkley, Ernest Fishbaugh, E. J. Eytinge, C. Hilliard, Arthur Cecil, and other well-known physicians are on the program for the scientific meetings Friday afternoon, Saturday morning and afternoon.

Friday evening, Harold Hill, clinical Professor of Medicine at the University of California, will speak on "Endocarditis." Harold Brunn, clinical Professor of Surgery at the University of California Medical School, will speak on "Lung Abscess." Saturday evening Professor Blaisdell of Pomona College will address the society on some subject which is closely related to medicine.

Officers of the Association are: Charles T. Sturgeon, M. D., president, Los Angeles; Ernest J. Eytinge, M. D., first vice-president, Redlands; Walter P. Bliss, M. D., second vice-president, Pasadena; William J. Norris, M. D., secretary and treasurer, Los Angeles.

C. M. Yater, Secretary of the New Mexico Medical Society, in a letter to William Duffield, Los Angeles, chairman local Committee of Arrangements for the 1927 session of the California Medical Association, points out that the New Mexico Society meets May 9-11. California physicians are invited to stop off on their way to the A. M. A. meeting in Washington.

Doctor Yater says Carlsbad Cavern, the greatest cavern in the world, is well worth seeing. "One small room of this cavern would house several Mammoth Caves of Kentucky," and the caverns are equipped with electric lights and elevators.

F. B. Steele, Secretary of the Utah Medical Association, in reply to an invitation to attend the California Medical Association annual meeting in Los Angeles, writes Doctor Duffield, chairman, as follows:

"Our meeting will probably be the week commencing

June 20. Our program is not in any degree complete as yet. We thought that by putting it just ahead of the Pacific Northwest meeting we might be able to steal some of their timber on the way out, and incidentally show them some of the beauties of Utah. We expect to have a six-day meet, the last three days devoted mostly to diagnostic clinics.

"You may regard it as presumption for anyone to speak to a Californian of the beauties of another section, but may I say of Utah as the Good Book says of another locality, 'The half has never been told.' Nothing would please us more than to have you and a great number of your associates as our guests, and permit us to show you some real sunshine, the most magnificent canyons that God ever allowed out of doors, and a state richer in natural resources than any other in the Union. I will deem it a privilege to send you a program when our arrangements are definitely completed.

"Barring complications I shall hope for the privilege of meeting you personally in Los Angeles the last week in April."

The American College of Surgeons will hold a state meeting at Sacramento on April 6th and 7 of this year, reports Charles E. von Geldern, 1010 Forum Building, Sacramento, California, of the last convention by arrangements.

The program will include wet and dry clinics, papers contributed by local and eastern members, but the main object of the meeting is to interest the public in scientific medicine and its ideals. For this purpose public lectures with lantern slides will be held.

The College feels that the success of such a meeting depends largely on the cooperation of the medical practitioners as a whole, and it therefore hopes that as many physicians as possible will attend and participate in the discussions.

Hotel accommodations suitable for the occasion have been promised by the local hostellers.

Notice of Postgraduate Opportunity for Study—While in Los Angeles, members of the regular medical profession are invited to see operations, surgical and medical clinics daily.

Call VAndike 1221, Station 14, for listings.

The Clinical and Statistical Section of the Los Angeles County Medical Association.

At the annual meeting of the staff of Fabiola Hospital, Oakland, held January 25, 1927, the following officers and committees were elected for the ensuing year: Claire Rasor, chairman; John Scherrick, vice-chairman; William Holcomb, secretary-treasurer. Program Committee: Daniel Crosby (chairman), George McClure, W. L. Bedell. Library Committee: Albert Rowe (chairman), Omer Etter, and Ergo Majors.

The laying of the cornerstone of the new Saint Joseph's Hospital of San Francisco was celebrated on February 6 in the presence of a large number of Sisters, doctors, nurses, and other friends of the institution, His Grace Archbishop Edward J. Hanna officiating. The structure of steel and reinforced concrete will represent the most approved earthquake and fireproof construction possible, and will be ready next November, providing beds for three hundred patients. The old buildings will serve until the new are opened.

The staff met February 9, Vice-President Frank Lowe presiding. F. C. Keck spoke on "A Two-Year Trip Around the World," and gave an entertaining account of the medical, artistic, historical, and other aspects of his travel, illustrated with stereopticon slides. Prof. Edmund Burke of the chemical department of the University of Montana, was introduced by Ethan Smith.

The commencement of the School of Nursing was scheduled for February 24 in the California Club, A. S. Musante, president of the staff, presiding, and Roy Parkinson speaking to the class of 1927. A dancant, sponsored by the patronesses of Saint Joseph's was given in

the evening. The graduates were honored at a dinner in Mark Hopkins Hotel, given by the Sisters.

The staff program for March 9 follows: "The Doctor and the Press—I-on-a-co," Annie G. Lyle. "Medical Treatment of Influenza," R. H. Dunn. "Surgical Complications of Influenza," C. E. Taylor; discussion by C. O. Southland and Ethan Smith.

The 1926 annual report of the Sutter Hospital, Sacramento, is an attractive pamphlet which reflects the third year's work of the hospital so that it may be readily understood and appreciated.

The hospital gave care to 3923 patients at a cost of \$8.25 per patient day, an increase from \$7.79, the cost per day of the preceding year. There were 401 births, 2946 operations and an average daily census of 96.

The officers of the hospital association are: George A. Spencer, president; W. A. Beattie, first vice-president; E. T. Rulison, treasurer; Frederick N. Scatena, assistant treasurer; George A. Briggs, secretary; Ellard L. Slack, superintendent.

The Canyon Sanatorium for the treatment of tuberculosis has instituted a special orthopedic department under the personal direction of C. C. Crane.

Special attention will be directed to the care and treatment of orthopedic conditions. Heliotherapy according to the Roller method in conjunction with open-air treatment will supplement the indicated medical and surgical procedures.

The annual meeting and dinner of the attending staff of California Lutheran Hospital, Los Angeles, was held at the University Club on Monday evening, February 21, 1927.

John A. Pratt, head of the Department of Ear, Nose, and Throat at the University of Minnesota Medical School spoke on "The Nonradical Treatment of Sinus Disease."

C. G. Toland, president of the Los Angeles County Medical Association, discussed "Iodin in the Management of the Surgical Goiter Patient."

Officers and committees of the staff rendered their annual reports. Granville MacGowan is president and George H. Kress is secretary of the staff organization.

The following examination dates have been assigned by the American Board of Otolaryngology: Washington, D. C.—Episcopal Eye, Ear and Throat Hospital, Monday, May 16, 1927, at 9 o'clock. Spokane, Washington—Saturday, June 4, 1927, at 9 o'clock.

Mount Zion Hospital Staff Conferences—L. D. Prince in discussing double congenital dislocation of hips described baby S, delivered in the hospital, November 15, 1921; a premature baby, breech delivery, Neisserian infection both eyes. Examination at the age of 2½ years showed a distinct waddling gait significant of congenital hips confirmed by x-rays, which showed a typical double congenital dislocation of the hips.

In April, 1924, closed manipulation for reduction was performed and subsequent x-rays showed the femoral heads in good position in the acetabulum. It was necessary, because of soiling, to change the cast several times. In November, 1924, x-rays showed the left hip in good position and the right hip slightly displaced upward. The child subsequently developed measles. When x-rays were again taken it was found that there was a recurrence of the dislocation on both sides. X-rays showed the acetabulum on both sides to be very shallow and the heads and necks, both sides, were likewise markedly anteverted. The child again entered the hospital (1925), but owing to its poor general condition further interference with the hips was not deemed advisable at that time. Tonsillectomy and general medication were utilized to improve her condition.

In January, 1926, an open reduction was performed on the left hip, and in March the right hip was reduced by open operation. The Smith-Peterson incision was used

and excellent exposure obtained. In attempting to replace the head (right) in the acetabulum a fracture of the neck occurred. It was possible, however, to make the reduction and the limb was put up in the abducted position.

In June, 1926, bilateral subtrochanteric osteotomies were performed and the femurs rotated inwardly so as to restore the normal relationship of the axis of the femur to the axis of its neck. Subsequent x-rays showed excellent position. The casts were removed in December, 1926, and following a course of physiotherapy treatment the child was allowed first to crawl and then to walk. At the present time the child is walking about without support, and while there is still considerable stiffness in movements of the hips this stiffness is gradually disappearing. The x-rays show the heads well in the acetabulums and a good functional recovery may be anticipated.

The patient was demonstrated because so many difficulties were encountered in bringing about the good result. Those patients who are resistant to the ordinary closed method of reduction or in those where dislocation tends to recur, one need not hesitate to do the open reduction.

One member of the first class to graduate from the University of California Medical School, in 1864, and the first woman ever to graduate from the institution in 1876 are still alive.

M. B. Pond of Napa, California, is the last survivor of the first class of the medical school in San Francisco, and according to the birth date on the original enrollment lists is now over 91 years of age.

Lucy M. Wanzer of San Francisco is the first woman to receive the degree of M. D. from the University school, fourteen years after its inauguration, although at the present time more than 17 per cent of the students enrolled are women.—Univ. of California *Clip Sheet*.

A. D. Morton and associates of the Morton Hospital, San Francisco, have expanded their former monthly bulletin of the hospital into *The Compend of Medicine and Surgery*. Number 1 contains original articles, editorials, news items, and advertising. We gather from the introductory editorial that *The Compend* is to be furnished free to western physicians and hospitals, and that enough advertising will be solicited to pay part of the cost of production and distribution.

We are glad to see on the editorial page the statement that "the editors reserve the right to reject any (advertising) copy not in conformity with the standards of the A. M. A." It is unusual for medical publications that are furnished to maintain such high ethical standards. Doctor Morton, managing editor, is a member of the San Francisco County Medical Society, the C. M. A., and the A. M. A. He is also a member of the California Board of Medical Examiners, but we do not find the names of the editor and the assistant editor listed as members of the local, state and national medical associations.

Kahn Precipitation Test for Syphilis—The evidence collected by J. G. Hopkins and Walter M. Brunet, New York (*Journal A. M. A.*), by means of a questionnaire brings out the following points: 1. The present technique of the Kahn test is superior to the earlier technique. 2. The results obtained by the Kahn test (present technique) correspond to those of the Wassermann test in a large majority of cases. Either test is negative in isolated cases of syphilis and positive in instances in which the serum reaction is the only evidence of syphilis. 3. A small number of Wassermann positive serums give negative Kahn reactions. 4. A slightly larger number of Wassermann negative serums give positive Kahn reactions. 5. The Kahn test is somewhat more sensitive than the Wassermann in primary syphilis and more persistently positive in many treated cases. 6. The main disadvantage of the Kahn test is its failure in a few cases showing a definitely positive Wassermann reaction. 7. The main advantages of the Kahn test are comparative simplicity of procedure, rapidity of obtaining results, its usefulness with anticomplementary serums, and the fact that it reveals a reaction in some cases in which the Wassermann reaction is negative or doubtful.

CALIFORNIA BOARD OF MEDICAL EXAMINERS

C. B. PINKHAM, M. D., *Secretary*

Walter Raleigh Anderson, cited following his conviction in Los Angeles of contributing to the delinquency of a minor, was called before the Board of Medical Examiners for a hearing at the regular meeting just closed and was found guilty as charged. The imposition of penalty was deferred to the regular meeting of the board to be held in San Francisco commencing June 27. Doctor Anderson failed to appear.

According to the Los Angeles *Illustrated News* of January 24, 1927, the Cale College of Chiropractic, Los Angeles, has petitioned Governor Young to remove from office the State Board of Chiropractic Examiners, based upon the board's refusal to examine certain graduates on the ground that the school is not sufficiently equipped in instructors.

Certificates from chiropractors would be recognized in securing workmen's compensation under a bill which Senator Thomas A. Maloney of San Francisco has introduced in the Senate. Under the present law, certificates from chiropractors are not recognized although those from physicians and surgeons are. Maloney expressed the belief that inasmuch as chiropractors are recognized by the state under a regularly constituted board, their certificates should be good when workmen present them for compensation claims.—*Sacramento Bee*, January 13, 1927.

According to the *Watsonville Register* of January 28, 1927, Chester Cook, recent arrival in California from Tennessee, was charged by the Board of Chiropractic Examiners with practicing chiropractic in Watsonville without obtaining the certificate required by law.

Eloisa de Bolanos, an unlicensed Mexican midwife, was recently reported to have pleaded guilty in Los Angeles to a charge of violation of the Medical Practice Act and was sentenced to serve 180 days in the county jail, said sentence being suspended for a period of two years. Our special agent reported that "in addition to practicing obstetrics she is said to treat different diseases with herbs and to sell herbs to induce abortions."

Senator John J. Crowley, at the request of the Board of Medical Examiners, has introduced a measure aimed at the diploma mills which will make it a felony to buy, sell, or traffic in fraudulent degrees and credentials. Fraud of this character is at present classified merely as a misdemeanor. The measure was passed at the 1925 session of the legislature, but failed to receive the approval of the Governor.

An editorial in the *San Francisco Chronicle* of January 25, 1927, under the caption, "Family Doctor Comes Back," relates that the University of California "is resuming an old practice of apprenticing young doctors to general practitioners. . . . Resumption of the preceptor method of teaching is expected to give the inexperienced physician the kind of training he needs . . . yet at the same time having the advice of the old doctor with whom he is serving. . . . The university will do the public a great service in bringing back the family doctor."

According to the *San Francisco Examiner* of February 1, 1927, "Colonel Dinshah P. Ghadiali, M. D., LL. D., picturesque Indian Pharisee, worshiper of Zoroaster, former officer in the New York aerial police force, metaphysician, originator or the 'science' of spectrochrome therapy, lecturer, and known throughout the country as the 'Hindoo Edison,' may spend five years in the federal penitentiary for what he did after he had mesmerized an attractive 19-year-old Portland girl, he having been sentenced to five years and a \$5000 fine on a Mann White Slave Law charge." In December, 1923, and again in April, 1924, this individual gave a course of lectures on his spectrochrome therapy in San Francisco, and also in Los Angeles. The *Journal of the American Medical Association*, January 26, 1924, page 321, printed an article regarding Colonel Ghadiali and his spectrochrome ther-

apy, and the Dearborn *Independent* of March 15, 1924, printed an article entitled "Colored Glass Now Cures All Our Ills." In both of these articles appeared reproduced photographs of Colonel Ghadiali.

According to a report from our special agent, W. Roy Graham, unlicensed chiropractor, charged with grand larceny, embezzlement and forgery, had been sentenced to San Quentin for from one to ten years on each of the seventeen counts, sentences to run consecutively. "If the maximum sentence (170 years) is carried out, his only chance to practice chiropractic in the future will be in state prison." ("News Items," June, October, and December, 1926.)

Davis Grisso, M.D., whose license was revoked by the Board of Medical Examiners in 1923, which revocation was sustained by the higher courts of this state some time ago, is reported to have continued his practice as evidenced by a death certificate of the Bohannon Cancer Institute filed with the Berkeley Health Department. A charge of violation of the Medical Practice Act has been filed against Grisso in Alameda County. Doctor Grisso's attorney filed some legal obstacle in the Superior Court of Oakland, California, which was designed to tie the hands of the board, to which Chief Counsel Bianchi demurred, and his demurrer was sustained, our attorney relating: "I trust this will terminate the matter. I am this day serving upon the attorney for Grisso notice of the proceedings taken by the court." ("News Items," January, February, 1926.)

Senator J. J. Crowley of San Francisco, at the request of the State Board of Medical Examiners, has introduced Senate Bill 308 amending Section 11 of the Medical Practice Act. This bill resulted from a conference with representatives of the three medical schools in this state, and changes the subjects required for physicians' and surgeons' examination in accordance with the present-day standard of medical education.

The State Supreme Court yesterday denied a writ of habeas corpus to Dr. F. K. Lord of Modesto, who was found guilty of prescribing an excessive amount of narcotics to a patient . . . —*San Francisco Chronicle*, December 12, 1926. Doctor Lord's California license was suspended for a period of one year by the Board of Medical Examiners on March 9, 1926, after he had been found guilty of habitual intemperance. His attorneys filed a writ of review which is pending, and in the meantime Doctor Lord has been practicing while awaiting the outcome of his appeal. ("News Items," March, May, June, and July, 1926.)

According to the *San Francisco Examiner* of February 4, 1927, Low Sam, a Chinese herbalist of San Francisco, was fined \$300 by Superior Judge Michael Roach following his conviction on a charge of violation of the state Medical Practice Act.

According to a report of our Special Agent Carter, Floyd McCall, a licensed chiropractor, who claims to be the inventor of an instrument known as the "Bionopath" and to be the head of the Binotorium in Los Angeles, has been distributing literature relating: "The crippled have been made to walk, the deaf to hear, goiters have been made to vanish, lost color of hair and skin have been restored, diabetes has yielded to bionopathic treatment." It is further related that "even cancer, rheumatism, and constipation have given way to the subtle power of the bionopath according to this circular; in fact no disease can successfully resist the 'cold black ray' that 'feeds the sick atom.'"

According to a report of our Special Agent Henderson, Michael Joseph McGranaghan, licensed chiropractor of San Francisco, on December 27, 1926, was charged with a violation of the Medical Practice Act, the charge resulting from the death of a boy which is reported to have occurred in McGranaghan's office on September 16, 1926, said death resulting from the giving of an anesthetic, it being held that the giving of an anesthetic by a licensed chiropractor constitutes a violation of the Medical Practice Act. ("News Items," November, 1926.)

According to the *San Francisco Examiner* of January 30, 1927, accusations against Orlando Edgar Miller,

psychologist and promoter of varied enterprises, continued to accumulate yesterday, one of which took the form of a third warrant charging grand larceny. Warrants charging embezzlement and violation of the corporate securities act were issued against him on Tuesday on complaint of two women. Orlando Miller has been featured in news items in various sections of the United States for several years. The files of the Board of Medical Examiners show reference to reports by national better business bureaus, local better business bureaus, newspaper articles published in California and elsewhere, all relating to the activities of this individual. ("News Items," June, October, November, 1926.)

The photograph of the individual who, posing as Alma Stevens Pennington, a legitimate practitioner of San Francisco, attempted to obtain an Illinois and a Michigan certificates by fraud, has been identified as that of Agnes Martin, a nurse formerly employed in the state hospital at Rockville, Indiana, and now alleged to be Mrs. A. E. Robertson of Detroit, Michigan. Investigation has disclosed that this individual, under the name of Pennington, pursued a short course at Rush Medical College some years ago.

Howard Lee Moffatt, M.D., found guilty by the Board of Medical Examiners at the October meeting of violation of the provisions of Section 14 based on narcotic charges, on February 1, 1927, was placed on five years' probation, the Board of Medical Examiners ordering that during said period he shall not apply for or possess a federal alcohol or narcotic permit. ("News Items," August, September, November, and December, 1926.)

Eldridge R. Morlan, M.D., Fellows, California, was called before the board at the February, 1927, meeting on a charge of alleged illegal operation and a partial hearing was held, the case being continued to the June meeting.

"In an opinion rendered by Special Master in Chancery, H. M. Wright, and served on counsel yesterday, it was held that Richard J. Montgomery would recover his property in Oakland, valued at \$50,000, without repaying Prof. Charles Munter the amount which Munter advanced on the property . . ." It is related that Montgomery deeded his property to Munter without consideration and while under a hypnotic spell, alleging that Munter, a lecturer on public health, of New York, while practicing his healing art in San Francisco, treated and hypnotized Montgomery, it being related that during the treatment Munter used a certain formula whereby he placed one hand under the back of the neck and stroked the forehead of the other, repeating slowly a formula somewhat as follows: "Relax! Relax! Relax! All worries are gone! All pains are gone! No one can influence you but Professor Munter, and that only for good. You must have confidence in Professor Munter, and everything will come out all right. Now you will go home and sleep like a baby . . ." —*San Francisco Chronicle*, January 18, 1927.

Although the license of Arthur Barris Nelson to practice in California was revoked by the Board of Medical Examiners, July 13, 1926, it has been reported that he has written several prescriptions for narcotics. The records of the Board of Medical Examiners show that on July 19, 1926, we notified the Internal Revenue Service, Narcotic Division, that Doctor Nelson's license to practice had been revoked, and on inquiring of them regarding Doctor Nelson's continuing to write narcotic prescriptions, we were informed that Doctor Nelson had applied for his narcotic tax stamp prior to the date of revocation of his license, and if the same was not surrendered, the narcotic enforcement agents could not proceed against Doctor Nelson for writing narcotic prescriptions. Under this theory it would seem that an individual who obtains his narcotic stamp prior to such time as his license to practice in this state might be revoked, could continue to write narcotic prescriptions during the current year for which said narcotic tax stamp was issued without molestation from the federal authorities, unless said individual voluntarily surrendered his tax stamp. This seems to be a paradoxical situation which should be corrected in the interest of law enforcement.

According to the report of our Special Agent Carter on December 14, 1926, Mollie Newkrug, former applicant to this board for a midwife certificate, is reported to have pleaded guilty to a charge of violation of the Medical Practice Act, whereupon the court sentenced her to pay a fine of \$100 or serve sixty days in the county jail, the fine thereupon being paid. On her reception room, near the door, and on the windows, were signs reading "Dr. M. Newkrug," and on certain bottles, containing oils, etc., were labels at the bottom of which appeared "Dr. M. Newkrug."

I. M. Noble, named in a warrant as the associate of Orlando Edgar Miller, mentioned above, was arrested yesterday by detectives Thomas Curtis and Thomas Reagen.—San Francisco *Chronicle*, January 21, 1927.

According to the report of our Special Agent Carter, complaint was filed on January 12, 1927, in Riverside County, charging Burton C. Platt with a violation of the Medical Practice Act, it being related that he is reported as treating various diseases, evidently intending to evade the law by calling his medicines "foods." It is stated he first examines the patients by feeling the pulse, looking at the tongue, asking questions, feeling down the spine with his hands, etc., then tells them what's the matter with them. He usually calls once a week and examines the patient. The records of the Board of Medical Examiners as far back as 1912-13, indicate that Platt was practicing medicine at that time under the guise of "food," and is alleged to have taken large sums of money from the people in the Van Nuys section. A pamphlet entitled "American Institute of Oriental Medicine" reproduces a photograph of "Dr. Burton C. Platt, vice-president and general manager, American Institute of Oriental Medicine." On the second page of the pamphlet appears a photograph followed by a biographical description of T. G. Hing, director "American Institute of Oriental Medicine." This pamphlet came to us some years ago in connection with our investigation of a Chinese herbalist in San Jose.

Following an investigation of more than a month, Dr. William Jules Poll, head of the Tujunga Sanitarium, was arrested yesterday by federal narcotic agents Jourdan, Parent and Monroy, with Pasadena detectives and member of the State Board of Pharmacy on a charge of issuing scores of fraudulent narcotic prescriptions. . . . According to federal agents the sanitarium head has been involved in narcotic investigations on previous occasions and has paid fines for violating the state Poison Act (Los Angeles *Examiner*, January 28, 1927). This individual is not licensed in California. ("News Items," November, 1926.)

"Volunteering to be committed to the Southern California State Hospital at Patton for treatment as a narcotic addict, Dr. A. M. Pond, prominent Upland physician and former president of the Iowa State Medical Society, yesterday escaped a one-year sentence in the county jail for driving an automobile while intoxicated. . . . On the physician's agreement that he be voluntarily committed to the state hospital, Superior Judge Allison suspended a one-year jail sentence and ordered Doctor Pond committed to Patton for two years or until paroled or discharged from that institution. 'This court does not wish you to get the idea that the crime to which you have pleaded guilty has been overlooked,' Judge Allison stated. 'The combination of liquor and an automobile forms one of the most serious menaces with which we have to contend today. It seems a pity that a man of your recognized ability in your profession has allowed yourself to slip so far as to be guilty of the charge and to allow yourself to become addicted to the use of narcotics. Do not overlook the fact that the charge to which you have pleaded guilty is a matter of record, and you are ordered to report to this court if you are released from the state hospital prior to the expiration of your term there.' Doctor Pond told the court he had used narcotics for a period of about two years. . . ." ("News Items," December, 1926.)

John J. Richstein, M.D., was found guilty of violation of Section 14 of the Medical Practice Act relating to

illegal advertising, and on February 1, 1927, was placed on probation for a period of five years.

Paul S. Sandfort, alleged physician, who recently pleaded guilty in Berkeley to a charge of violation of the Medical Practice Act, according to the San Francisco *Examiner* of January 22, 1927, was called before Superior Judge Warren B. Tryon of Alameda County "on a citation charging contempt of court in his failure to pay \$125 a month to his present wife, Violet Sandfort, now suing him for separate maintenance. ("News Items," January, February, and May, 1926.)

"Dr. William Shore, arrested Tuesday night by county authorities, and fined \$200 the following day for possession of alcoholic liquor, was fined \$500 by Judge Thomas Meilandt, city recorder, Thursday afternoon, when he pleaded guilty to a similar charge made by the city. Following upon the raid and arrest Tuesday, Doctor Shore's garage was raided by Chief of Police Mosher and city officers who obtained ten gallons of raw alcohol buried in the ground. . . ."—Oxnard *Courier*, January 8, 1927.

Newton B. Siler, M.D., found guilty at the October meeting of the Board of Medical Examiners on a narcotic charge on February 2, 1927, was placed on probation for a period of five years, during which time he shall not possess or apply for a federal alcohol or narcotic permit.

The January, 1927, issue of the *Stirring Rod*, Sidney J. Wolf, editor, 300 Broadway, San Francisco, a journal circulated among the drug trade, printed an article assailing the doctors of California, and particularly the Medical Practice Act, the article being signed G. D. Johnson. Among the statements in the article appeared the following: "About a year ago a pharmacist was arrested for practicing medicine without a license for selling over the counter a box of female pills advertised and sold throughout the United States. A jury acquitted him. . . ."

Reference to the violator files show that a druggist named G. D. Johnson was arrested in Stockton on more than one occasion on the charge of violation of the Medical Practice Act, and that on December 3, 1923, he pleaded guilty and was sentenced to pay a fine of \$150. In March, 1924, another complaint was filed.

In the latter part of 1925 reports of our investigation department indicated that Mrs. S. called on G. D. Johnson at the Kintado Drug Store, Stockton, that he took her to his residence and, according to her story, made a physical examination and thereafter is alleged to have performed some sort of an operation.

On January 4, 1926, it was reported that a Stockton police officer, on police warrant, took from G. D. Johnson's residence various instruments, including a spectrum, forceps, probes, stethoscope, about forty hypodermic needles, etc., and that he was thereafter charged with violation of Section 274 of the Penal Code, as well as with violation of Section 17 of the Medical Act.

On April 8, 1926, Mr. Johnson was acquitted on the Penal Code charge, and on November 8, 1926, found guilty of violation of the Medical Practice Act and sentenced to pay a fine of \$500 and serve five months in the county jail. Notice of appeal was given when sentence was imposed.

Is it to be wondered that Mr. Johnson urges that "something should be done to take away some of the powers of the State Board of Medical Examiners," perhaps so he may be able to use the various instruments and continue his practice as above described. ("News Items," February and September, 1926.)

Junsai Watanabe, found guilty by the Board of Medical Examiners at the July meeting following his conviction of "social vagrancy" in the courts of San Diego came before the board at the February meeting just closed, presenting a court order setting aside the verdict of conviction entered several months before. As a consequence, on February 2, 1927, the charges against Junsai Watanabe were dismissed.

"'Dr.' is a title to be used only by those privileged by a license from the State Medical Board. For that reason E. O. Tilburne, said to have attached the title to his own name without permission of the medical board, came before Judge McLucas today for arraignment. . . ."—Los Angeles *Record*, January 17, 1927.

READERS' FORUM

Santa Barbara, Calif.,
January 28, 1927.

Dear Editor: I enclose a copy of the protest which I, as president of the American Association for Medical Progress, Santa Barbara County branch, have made against the Heisinger anti-evolution bill.

You will undoubtedly agree with me that any restrictions placed upon the teaching of biology in our schools may very well have an adverse effect upon the broader knowledge of such a subject with which our future medical students should be equipped. I would suggest that, if you have not already planned to do so, you make a similar protest on behalf of the State Medical Society to Mr. W. M. Byrne, chairman, Committee on Education of the Assembly. Also let us have one of your vigorous editorials on the subject in your journal, hoping thereby to stir the physicians of the state, many of whom are on school boards, to protest. I would also appreciate it if you could give some publicity to my protest as president of the American Association for Medical Progress. If we bestir ourselves the bill can be killed in committee as was done in Alabama last week.

Sincerely yours,
GEORGE E. COLEMAN, *President*.

P. S.—Sessions of the committees are held during the thirty day recess which began January 21. A brief of protest by the Science League of America, Inc., has already been sent.

Santa Barbara, Calif.,
January 28, 1927.

Mr. W. M. Byrne, Chairman,
Committee on Education of the Assembly,
Sacramento, Calif.

Re: The Heisinger Anti-Evolution Bill

Dear Sir: The American Association for Medical Progress was organized to aid in safeguarding the public health. As a means to that end it is primarily occupied with the dissemination among laymen of elementary medical knowledge, authentic and reliable and more particularly that gained by experimental research.

A complete understanding of this knowledge and appreciation of the necessity for the preventive measures against disease which are founded upon it can be acquired readily only by those whose minds have been prepared by the unrestricted comparative study, during their school years, of the anatomical, physiological and other biological relationships which exist between man and the lower animals.

The belief is practically unanimous among those who specialize in and teach the biological sciences that man arose successively from lower forms and that his ancestry logically must be placed in that animal kingdom. Whether this truth is self-evident or not can be judged only by those most competent to weigh the incontrovertible evidence in favor of it and these are the science teachers in our schools and universities.

No restrictions should be placed by the laws of our state upon the exposition by teachers to students of all the data accumulated by scientists and the obvious conclusions to be drawn therefrom. The anti-evolution bill proposed by Assemblyman Heisinger distinctly places such restrictions upon the teaching of biology.

As president of the American Association for Medical Progress, Santa Barbara County branch, I wish to register my vigorous protest against the favorable consideration by your committee of this bill or any modification thereof which would prohibit absolute freedom in the teaching of science.

Yours respectfully,
(Signed) GEORGE E. COLEMAN, *President*.

Pacific Grove, Calif.,
January 30, 1927.

To the Editor: I thought you might be interested in knowing that the State Board of Education has caused to

be deleted from public school textbooks on physiology a passage stating that disease is real, and that physical as well as mental measures should be taken for its cure.

This was done, of course, at the instance of Christian Scientists, and my authority is the latest annual report of the Science League of America, whose headquarters is at 509 Gillette Building, 830 Market Street, San Francisco.

A letter which I wrote to the Board of Education asking them if it could be true that they had so stultified themselves was not answered.

It seems to me that something should be done about this, or the Board of Education may go still further, and, as I have three children attending public school, I do not take kindly to such damned nonsense.

Vallejo, Calif.,
February 12, 1927.

Dear Editor: Permit me to congratulate you upon the two editorials of the last issue of CALIFORNIA AND WESTERN MEDICINE: "Who are the Indigent" and "The Proposed Government Monopoly of Industrial Medicine." These editorials are convincing and are worth the price of a year's subscription in themselves. Let's hear the rest!

ROBERT B. DEMPSEY, M. D.

Heliotherapy in Relation to Treatment of Tuberculosis of Spine in Children—Ralph K. Ghormley, Boston (*Journal A. M. A.*), records his observations of sixty-three cases of tuberculosis of the spine at the New England Peabody Home for Crippled Children in Newton Center, Massachusetts. Of the sixty-three patients, for the most part children under 10 years of age, all but four had the onset of the disease before the age of 6 years, and in forty-three of the remaining fifty-nine cases, the disease began before 3 years of age. The value of the weight chart as a guide to treatment is emphasized. The climate of New England and particularly that part around Boston is at times not mild. The yearly average percentage of possible sunshine is 57. During the months of November, December and January, about 48 per cent of possible hours of sunshine are available. From June through September there is about 63 per cent. There is a definite tendency toward a general loss in weight during the winter months, while during the summer months a marked rise occurs. Artificial light of the mercury vapor quartz type is now used as a substitute for sunlight on cloudy and cold days. So far, experience has not shown any striking results from this form of therapy. It seems to have a definite tonic effect in some cases and produces a distinct pigmentation. Calcification, both in the spine and in the abscesses not drained, represents a more striking change than is seen in cases treated without heliotherapy. Whether there is a specific action of the sunlight toward this in tuberculosis has not been proved. In a case cited the roentgen-ray examination showed calcification throughout the lesion and gradual diminution in the size of the psoas abscess with calcification. At autopsy the spine and psoas abscess were removed. These have been sectioned and thoroughly studied. Nowhere, either in the spine or in the walls of the abscess, is there any evidence of active tuberculosis. There is healing by fibrosis, and the marrow spaces of the involved vertebrae show only the normal cellular constituents of vertebrae in a child of that age. The contents of the calcified abscess were not hard, but were of the consistency and appearance of wet chalk. The spine on gross examination was firm and solidly fused over the diseased area. Ghormley feels that this case furnishes definite proof that the disease in the spine may be healed by heliotherapy. Success in improving deformity depends on the localization and particularly the extent and duration of the disease, and early diagnosis followed by adequate treatment under constant observation will result in healing with slight, if any, deformity. Though the advantages of heliotherapy are well known, the calcification in the lesion and in the abscesses is an important change, and the altered reaction of the tissues through allergy may be better sustained under heliotherapy and thus healing favored.

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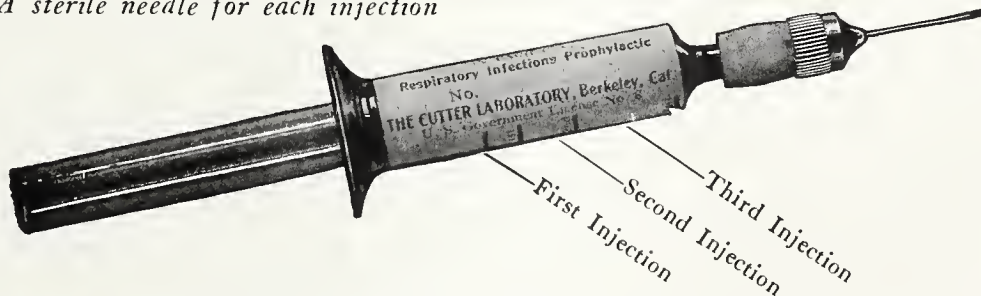
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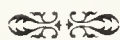
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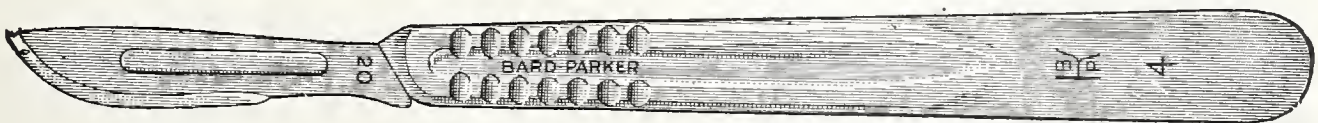
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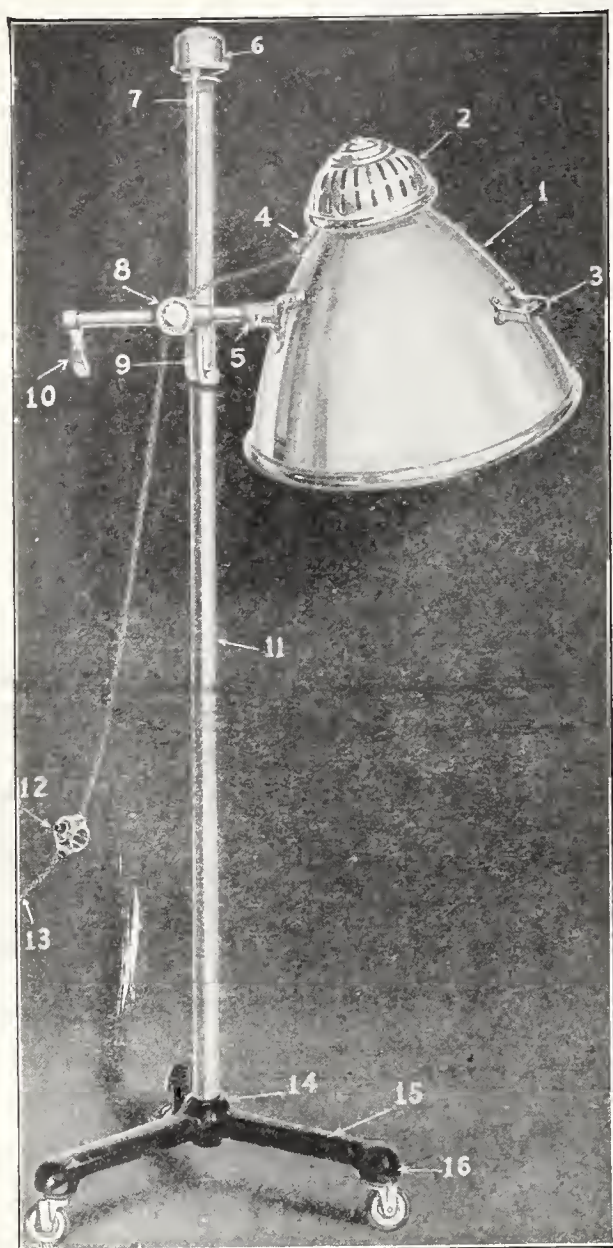
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First section leaves New York, May 21. Assemblies open in London, May 31, and close in Paris, July 9.

Clinic cities to be visited are London, Edinburgh, Oslo, Stockholm, Upsala, Copenhagen, Hamburg, Leipzig, Munich, Strasburg, Heidelberg, Frankfurt, and Paris. Clinics and demonstrations covering all the different branches of medical science will be presented by the leading teachers and clinicians of the medical universities of these cities.

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The itinerary of the second section will be the same as that of the first section, leaving New York, June 18. Assemblies close in Paris, August 5.

Transportation arrangements are in charge of the travel department of the American Express Company, 65 Broadway New York, N. Y.

There is still excellent space available in both sections.

BOOK REVIEWS

(Continued from Page 306)

review of the Foundation's work when he says "the recent growth in number and resources of privately endowed foundations, notably, although not exclusively, in the United States of America, has quite properly raised questions as to the place of these agencies in the social order and their relation to the work of governments."

It seems to have been a fundamental purpose of the trustees to keep the possibilities for good, as well as the dangers inherent in wrong action, always before them in whatever they do.

Every friend of better medicine and better health tries to hope that the combined wisdom of the trustees who direct the policies of the Foundation may prove as valuable in the distant future as it seems to be now. They carry a remarkable responsibility and their policies now, and even more so as time goes on, will determine the course of medical and health development.

That they have in the past made mistakes seems certain and that they will make others is probable, but the fact that the outstanding men who are directing affairs keep their minds open to evidence, upon which they act when it is convincing—even though it may mean a change of policy—is most promising for the welfare of mankind.

Every physician will get from the reading of this report information useful to him and those he serves.

State Board of Health of California: Twenty-ninth biennial report, State Printing Office.

This 200-page report contains considerable information presented in the form that has characterized government reports from time immemorial. Few people these days are interested in formal reports covering two-year periods; too much of what is worth while already has been published elsewhere. As one instance of this, the report under review contains a good description of the small plague epidemic that occurred in Los Angeles in 1924, which already has been well and repeatedly reported by officers of the health services and others in current medical literature.

The Department of Parasitology of the State Board of Health examined 23,001 specimens for protozoa, with 10,623 positive findings; 5902 specimens for worms, with 171 positive findings.

The most interesting of these figures reveal the finding of ameba in 4342 persons of 6834 examined.

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(Continued on Page 396)

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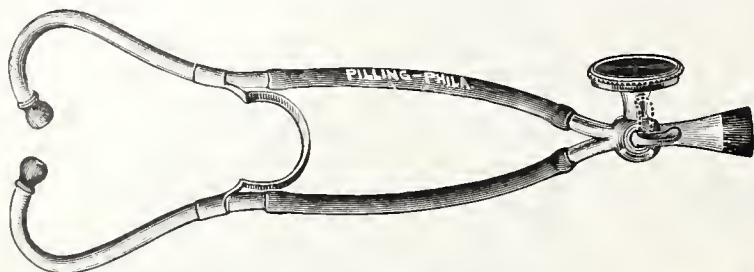
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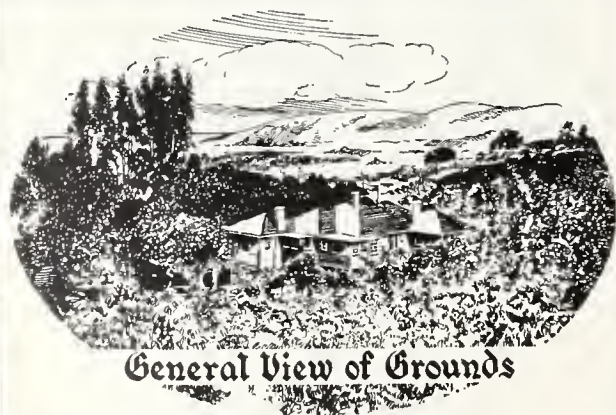
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BOOK REVIEWS

(Continued from Page 394)

fections and infestations in California may prove to be valuable information some day when the situation becomes acute enough to arouse widespread attention. California is fortunate in having a board of health made up entirely of educated physicians who are capable of looking clearly and sanely at health and medical problems.

The board at present consists of: George E. Ebricht, president; Fred F. Gundrum, vice-president; Walter M. Dickie, secretary and executive officer; A. J. Scott, Jr.; Edward F. Glaser, Adelaide Brown, Robert A. Peers.

Hewat's Examination of the Urine. Revised by G. R. Malcolm Smith. Seventh edition. Paul B. Hoeber, Inc., 1926. Price, \$1.50.

The most astonishing thing about this little vest-pocket book on the technique of examination of urine and other "clinical side-room methods," is that its usefulness and popularity have continued for over forty years.

There is not a thing in it not more fully covered in scores of more elaborate books; nevertheless it continues to be revised and republished. The new seventh edition maintains the same tabloid size as other editions.

A Manual in Preliminary Dietetics. By Maude A. Perry, B. Sc. C. V. Mosby Company, St. Louis. Price, \$1.25.

This well-written little book of 150 pages is an outline of the instruction in dietetics given by the author to nurses in the Montreal General Hospital. The essentials of the subject are carefully selected, well presented, and the book unusually free from the fads, theories and stupidities often seen in books of this character.

Abdominal Operations. By Berkeley Moynihan. Fourth edition. Two volumes. Illustrated. Philadelphia and London: W. B. Saunders, 1926.

With the fascinating style which characterizes all his writings, Moynihan has added to and also revised the third edition of *Abdominal Operations*. His work is modestly christened, for it is, in fact, a broad treatise on those abdominal conditions with which it deals. One reads, feeling always an intimacy with the master, understanding and appreciating his scientific sincerity.

While liberally acclaiming the works of his cohorts his conclusions for the most part are derived from observa-

(Continued on Page 400)



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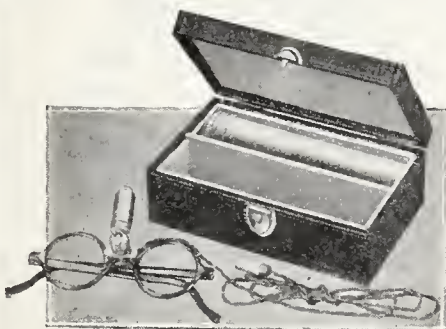
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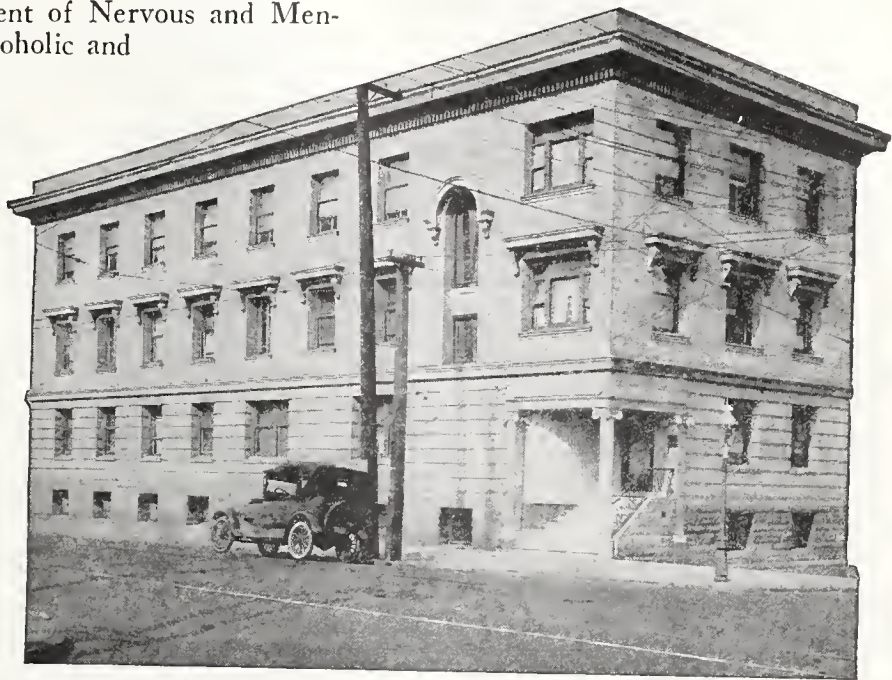
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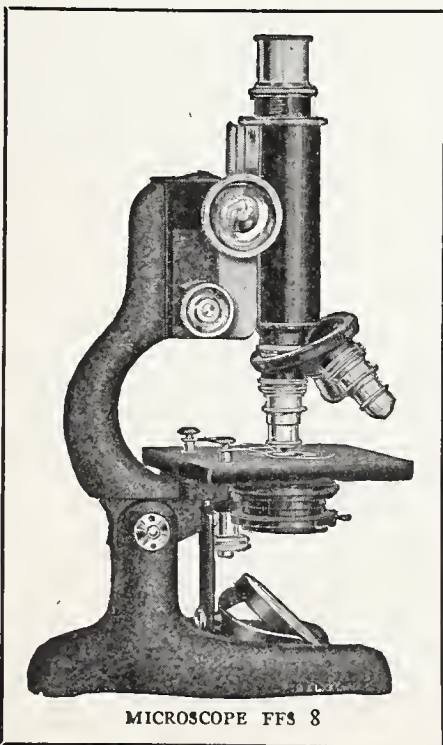
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(Continued from Page 396)

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tions on his own material. It is to be noted that Moynihan takes his stand with those surgeons advocating partial gastrectomy in the treatment of gastric ulcer.

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The operative technique is dealt with at length, each step being minutely described and fully illustrated.

The first three chapters under Section 1, "General Considerations," are of impressive importance and embrace the following subjects:

1. Bacteriology of the stomach and intestinal tract.
 2. General remarks upon preparation in abdominal operations; upon the conduct of the operation and the treatment of the patient.
 3. Complications and sequelae of abdominal operations.
- These 130 pages give in concise and masterly fashion that information which must be at the command of every conscientious surgeon.

Clinical Pediatrics. By John Lovett Morse. Philadelphia and London: W. B. Saunders, 1926.

A common-sense treatise on pediatrics, but a little disappointing in its lack of completeness. This the author himself admits, as he does the poor balance of the book. For example, the sections on nutrition and respiratory diseases, while treated in a most adequate and comprehensive manner take up the major part of the book, while other chapters, notably those on diabetes and syphilis are rather sketchily done.

The manner of presentation is direct and straight forward, but the literary style and the old-fashioned illustrations leave much to be desired.

Taken all in all, however, this book is a valuable addition to the physician's library, if only for the steady-

(Continued on Page 403)



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(Continued from Page 400)

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Hospital Housekeeping and Sanitation. By Nora P. Hurst, R.N. The C. V. Mosby Company, St. Louis. Price, \$1.25.

A small 150-page book that may be useful to employees of hospitals whose organization and methods conform with the author's idea of what they should be.

A Manual of Pharmacology and Its Application to Therapeutics and Toxicology. By Thorald Sollmann. W. B. Saunders Company. Price, \$7.50.

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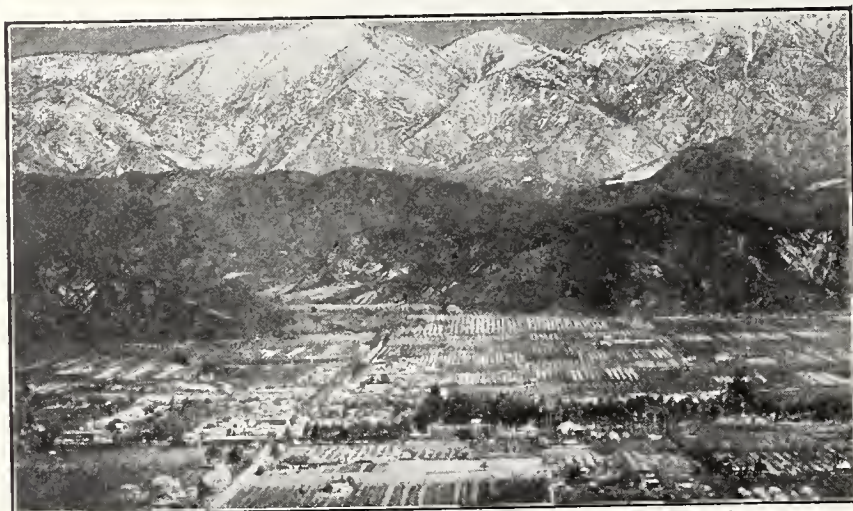
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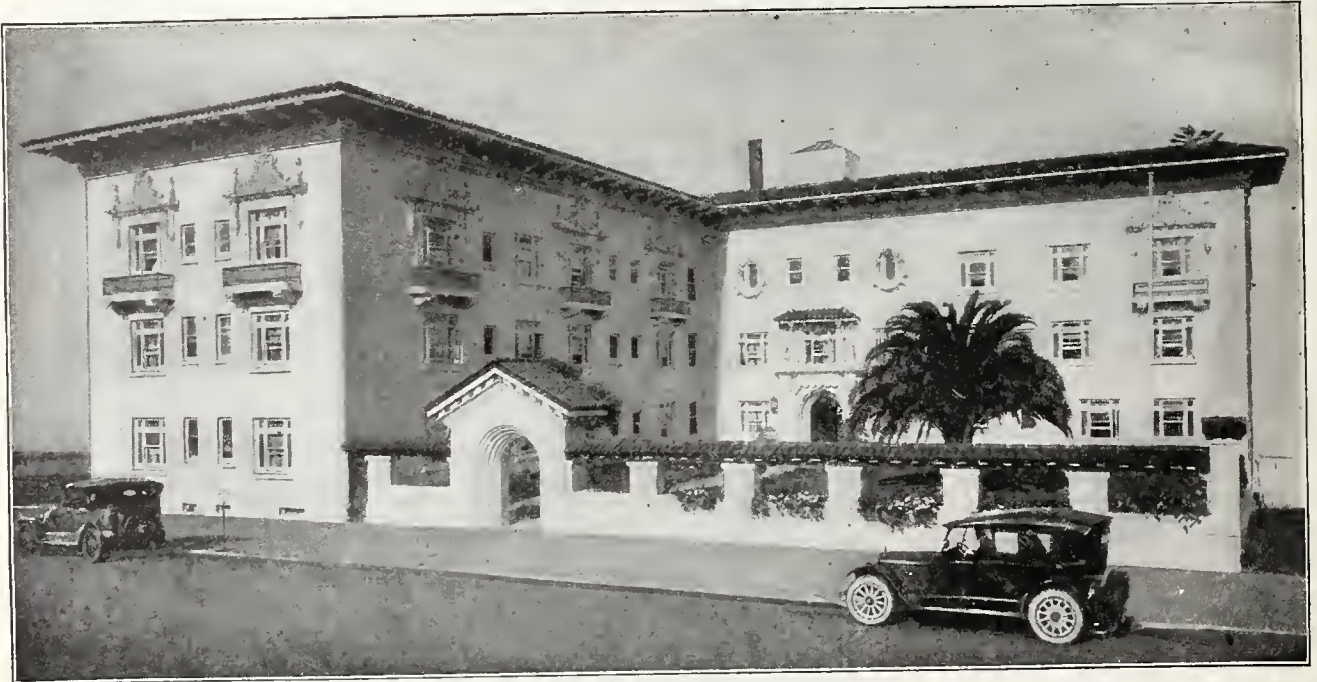
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(Continued from Page 403)

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BOOKS RECEIVED

A Terminology of Disease. By Adrian V. S. Lambert. Review copy by courtesy of the publishers, Paul B. Hoeber, Inc.

A Primer for Diabetic Patients. A Brief Outline of the Treatment of Diabetes with Diet and Insulin, Including Directions and Charts for the Use of Physicians in Planning Diet Prescriptions. By Russell M. Wilder, M. D., Section on Nutrition, Division of Medicine, Mayo Clinic. Third edition, reset. 12mo of 134 pages. Philadelphia and London: W. B. Saunders Company, 1927. Cloth, \$1.50 net.

The Conquest of Disease. By Thurman B. Rice. Review copy by courtesy of the publishers, The Macmillan Company, New York.

Hospital Housekeeping and Sanitation. By Nora P. Hurst, R. N. Review copy by courtesy of the publishers, C. V. Mosby Company, St. Louis.

A Manual in Preliminary Dietetics. By Maude A. Perry, B. Sc. Review copy by courtesy of the publishers, C. V. Mosby Company, St. Louis.

Textbook of Biological Chemistry. By James B. Sumner, Ph. D. Review copy by courtesy of the publishers, The Macmillan Company, New York.

TRUTH ABOUT MEDICINES New and Nonofficial Remedies

(Abstracts from reports of Council on Pharmacy and Chemistry, A. M. A.)

Note.—These do not represent all of the actions of the Council, but they do represent those remedies manufactured by firms who cooperate with California and Western Medicine in its advertising columns, and thereby with the physicians in California.

In addition to the articles previously enumerated, the following have been accepted:

Eli Lilly & Co.—Erysipelas Streptococcus Antitoxin—Lilly (Concentrated Globulin).

Parke, Davis & Co.—Antistreptococcus Serum 20 cc. piston syringe; Antistreptococcus Serum 50 cc. piston syringe.

Effects of Diet During Pregnancy on Development of Rickets in Offspring—J. Victor Greenebaum, Theodore K. Selkirk, Florence A. Otis, and A. Graeme Mitchell, Cincinnati (*Journal A. M. A.*), present the results of their study of the effects of actively regulated diets of pregnant women on the development of rickets in their offspring. Twenty-five pregnant women who previously had had rachitic children were the basis of study. These women were studied in two groups over a period of eighteen months in order to include both winter and summer seasons. Only mothers apparently physically normal and promising to co-operate were chosen. A number of control cases were studied in the same manner. At the end of the observation period the experimental or supervision period began and continued approximately throughout the last three months of pregnancy. During this time the mothers' diets were supplemented by vegetables, cereals, fruit, eggs, and milk, the endeavor being to bring the daily food intake up to the proper standard for pregnant women. The standards sought were the daily ingestion of food containing 1 gm. of calcium, 1.45 gm. of phosphorus and 0.015 gm. of iron, and having the equivalent of 2500 calories. These experiments would indicate that if the diet of the mother during the last three months of pregnancy can be made approximately correct in caloric and mineral intake, while it will not prevent rickets, it will have a controlling influence on the development of the disease in her offspring. A control series of twenty-five infants of the same age and social status for whom cod liver oil was ordered as a routine was also studied. One hundred per cent of these were found by roentgenographic examination to have rickets by the eighth month. The average daily calories in the antepartum diets of the mothers whose infants developed moderate and marked rickets were, as a group, lower (average, 1490) than in the group whose infants developed mild rickets (average, 1707). In the entire series, regardless of the degree of rickets, the mineral intake of the mothers were approximately the same. In

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the cases in which blood examinations were made the inorganic phosphorus content of the mothers' serum, obtained in the antepartum period, was uniformly normal, while the inorganic phosphorus content of the babies' serum was below normal. The calcium content of both mothers' and babies' blood serum was normal. Frequently a low calcium content of the breast milk was found, possibly the result of the inadequate diets of the mothers during the lactation period, since practically all of them returned during that period to their previous habits of eating, consuming a diet in which milk especially was lacking. The inorganic phosphorus of the breast milk was uniformly normal. The season of the year in which the babies were born apparently had no influence on the degree of rickets found, although the series is too small to make this statement of any significance. Five of the babies found by roentgen ray examination to have rickets had no clinical evidence of rickets. Two babies whose roentgenologic examinations were negative for rickets were considered to have the disease clinically. The incidence of rickets in this series of twenty-two babies to whom cod liver oil was not given was as follows: By the eighth month, sixteen of the infants showed rickets on clinical examination (73 per cent) and nineteen showed rickets by roentgenologic examination (87 per cent).

Metastatic Brain Abscess Secondary to Perirectal Abscess and Stricture of Rectum—Charles S. Schafer, Philadelphia (*Journal A. M. A.*), relates the case of a colored man, aged 55, who suffered from incontinence of the bowels. For eight years he had difficulty in controlling his bowel movements, and had a continuous foul discharge about the anus. Examination revealed, on each side of the anus, a hard indurated area involving both ischioanal fossae. Six or more sinuses discharged a foul, greenish-yellow pus from fistulous tracts, which extended into the rectum and ischioanal fossae. Rectal examination disclosed a stricture situated about one and

(Continued on Page 416)

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tion of human milk."—by Henry Dwight Chapin, A. M., M. D., *Ex-President of the American Pediatric Society* and Lawrence Thomas Royster, A. M., M. D., *Professor of Pediatrics of the University of Virginia*, "Diseases of Infants and Children", page 136.

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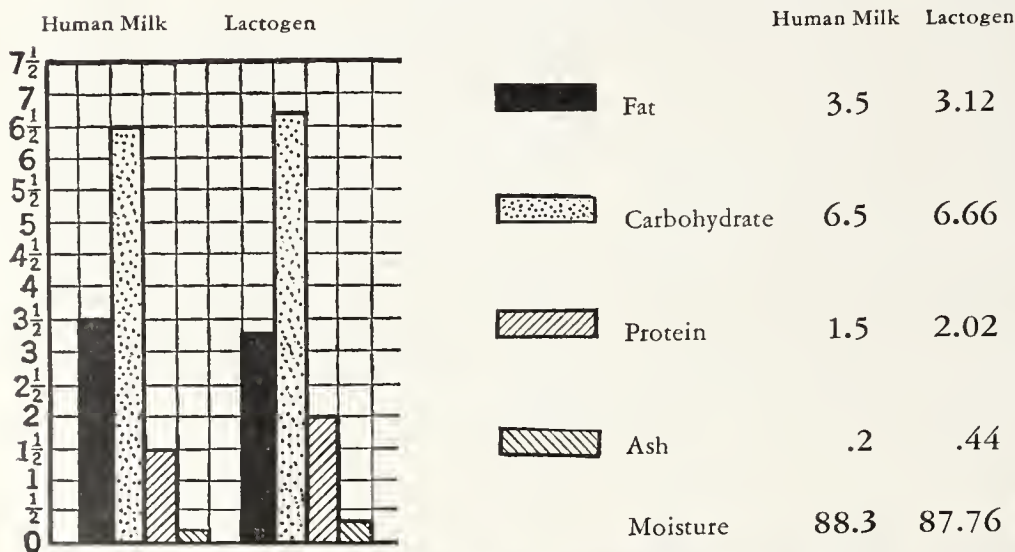
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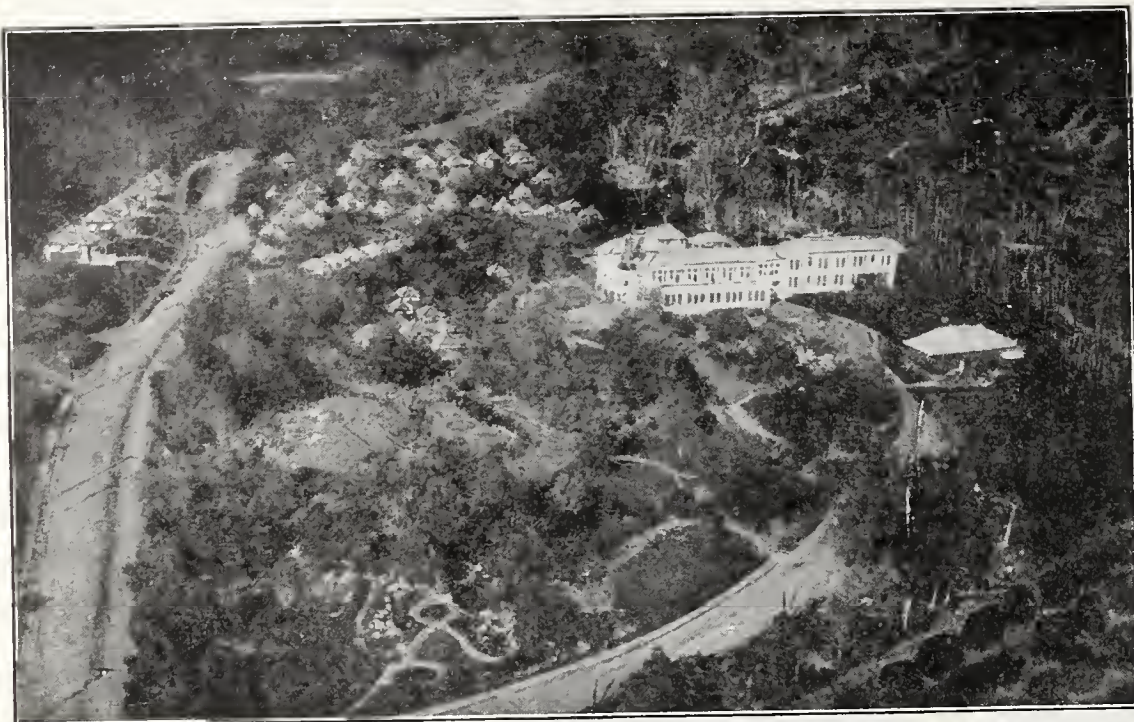
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(Continued from Page 413)

one-half inches above the anal orifice. Operation consisted of a posterior proctotomy and wide excision of the fistulous tracts and indurated tissue in the ischiorectal fossae. Two days after operation the patient passed his first full-formed stool in eight years. Recovery seemed complete except for some discharge from the right ischiorectal fossa, where an old fistulous tract was evidently overlooked at the time of operation. Three months after operation he presented a left-sided hemipalgia. He was well oriented and quite sensible, but he had a slight difficulty in articulating. The reflexes were increased on the left side. Pupils were equal in size and reacted to light and in accommodation. Two days prior to the hemiplegic attack, the patient complained of severe frontal headache. The next morning his headache disappeared, but he found that he could not move his left arm. That evening his left leg became similarly involved. His condition grew rapidly worse. A diagnosis of cerebral thrombosis was made. Later, the neurologists confirmed

this diagnosis and localized the lesion in the internal capsule, right hemisphere. Death followed ten days after admission. Examination of the brain showed that the right cerebral hemisphere was larger than the left. The right frontomesial surface extended over and invaginated itself into the left frontomesial surface. There was a definite bulging of the third ventricle, which suggested an increased intracerebral pressure. Brain edema was evident. This was most marked in the posterior formation of the right frontal lobe. There was softening of the right cerebral hemisphere, thickening of the pia arachnoid and a slight arteriosclerosis. On cross-section of the hemispheres in a horizontal plane, an abscess cavity lined with a greenish pus and filled with a foul-smelling fluid was seen in the right frontomotor area. The cavity measured 2.5 cm. by 5 cm., and was roughly oval. The internal capsule was involved as well as portions of the caudate and the lenticular nuclei. Bacteriologic examination of the pus from the abscess cavity revealed colon bacilli and streptococci.

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Dean J. Whitridge Williams, in an address at the opening of the new Maternity Pavilion of the Royal Victoria Hospital, Montreal (*Science*, December 7, 1926), October 29, 1926, defined a university woman's clinic as an adequately equipped hospital limited to the care of women suffering from the infirmities of their sex, and manned by highly trained physicians with university ideals. In it medical students are to be trained, and serious efforts are to be made to discover at least some of the secrets connected with the normal and abnormal functioning of the female reproductive system, as well as of its interdependence with other organs of the body. Such a conception is relatively new in English-speaking lands, for, although we have had for years women's hospitals, lying-in hospitals, maternity hospitals, as well as other hospitals with undescriptive and ambiguous designations, they were all organized to care for sick women along purely humanitarian lines, were only indirectly concerned with education and not at all with research. Indeed, hospitals still exist which limit their humanitarianism to "respectable married women only," forbid teaching within their walls, have no conception of what research means and would regard the suggestion of animal experimentation as anathema.

The first hospital department for maternity was opened in the Hotel Dieu, Paris, in the thirteenth century. In the quaint language of the times, this basement ward was described, as follows: "The fifth ward, below this large 'salle' is in a retired and close location, and there are the pregnant women and those in childbirth, for it stands to reason and is quite proper that women in childbirth should be in a retired and secret place, and should not be visible like other sick persons, and the ward contained twenty-four beds."

The patients slept four in a bed, and no distinction was made as to whether they were pregnant or delivered, sick or well.

Except for private courses given by practitioners in their own quarters, it should be recalled that no instruction in obstetrics was available for medical students until 1745, when the University of Paris authorized a theo-

retical course, and it was not until one hundred years later that the first clinique was opened for practical instruction.

It may be truthfully said that Johann Jacob Fried, organized the first woman's clinic in the world about 1730 at Maternity of Strasbourg.

The Lead Treatment of Cancer—At a recent meeting of the British Medical Association a full summary of the results to date was presented by members of the staff of the Liverpool Medical Research Organization. The clinical survey indicates that there is promise of therapeutic benefit in a few selected cases of otherwise hopeless cancer. The preliminary task before treatment can be begun is the selection of patients who may possibly obtain benefit. The lead suspension which Blair Bell uses contains fairly fine particles, some of which are metallic lead, and some lead hydroxide and lead carbonate. The mixture is more toxic than pure colloidal lead, but is also more effective in the destruction of tumors. Commercial products are not as yet available, but several laboratories in this country and in England are experimenting with various preparations, hoping soon to be able to develop a standardized and reliable product. It seems that Blair Bell has shown that when employed under cited limitations and by those who possess proper laboratory facilities and clinical experience, lead therapy offers to a small number of persons affected with inoperable tumors, a chance to escape the consequences of the disease. But before any widespread use can be made of the method some means of removing lead from the body to control acute or chronic poisoning should be developed. The whole situation is thus frankly in the experimental stage. To carry out the treatment at all requires hospitalization of the patient for some months, laboratory and clinical facilities not everywhere available, and funds for frequent transfusions. It seems improbable that the method will ever replace surgery or compete with irradiation, but it has already accomplished something in patients in whom one or both of these procedures had failed.—*Journal A. M. A.*, January 8, 1927.



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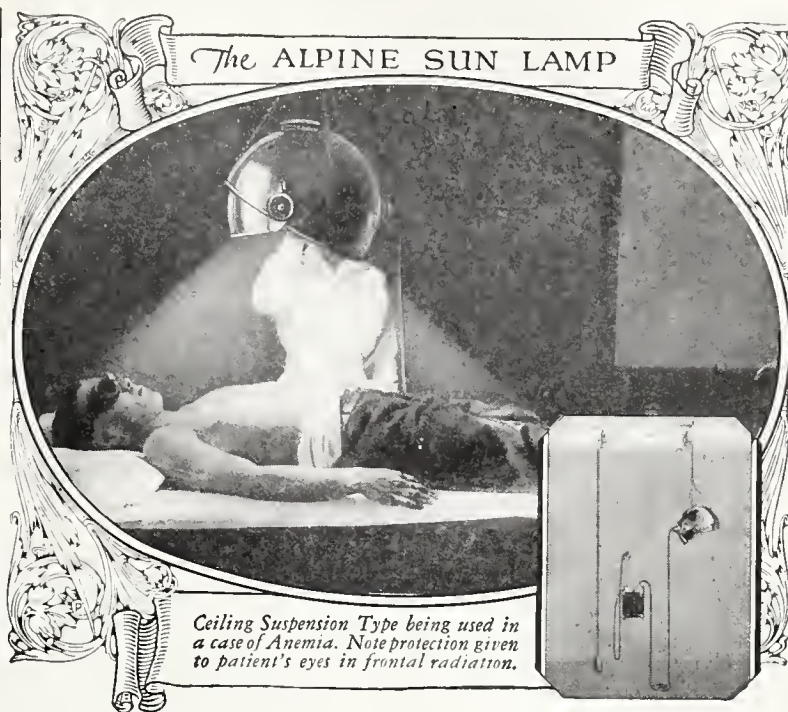
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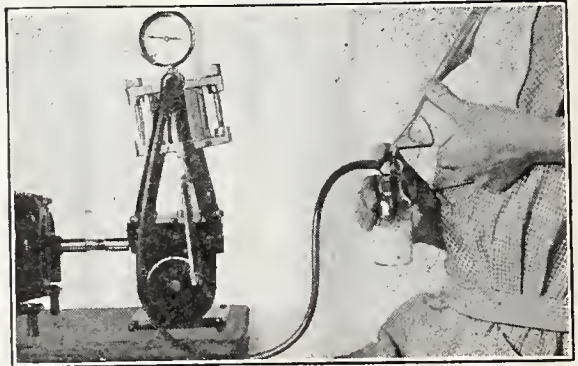
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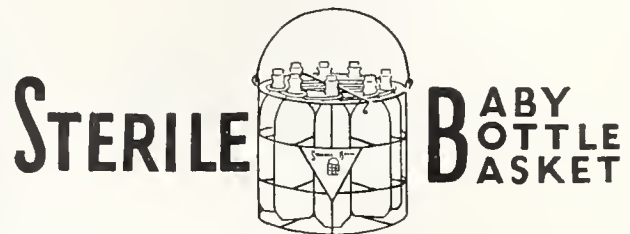
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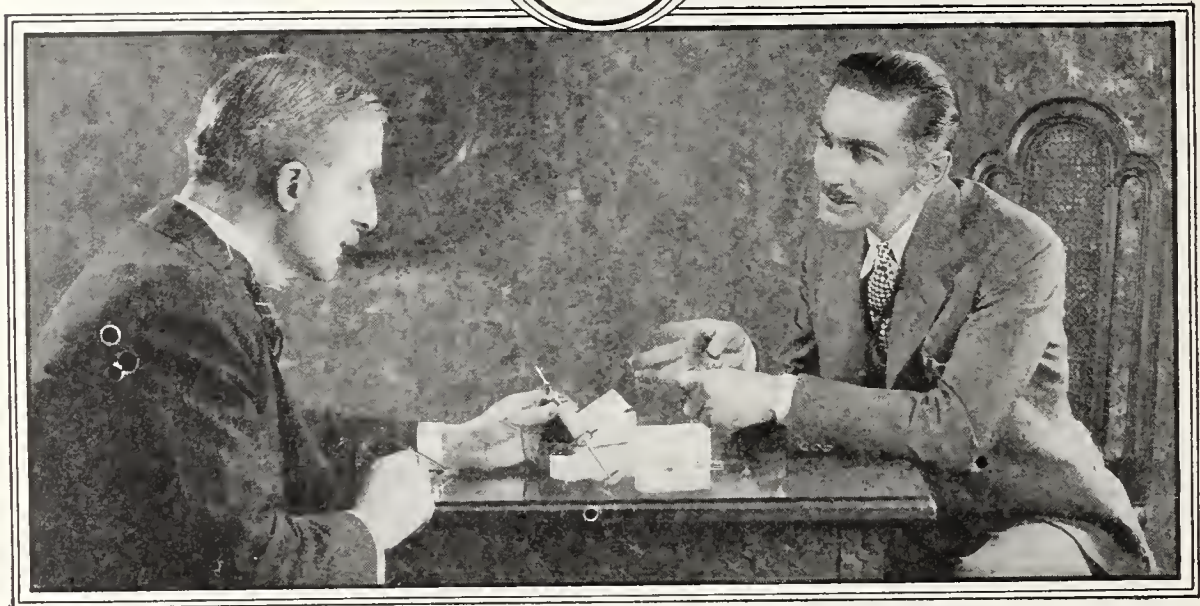
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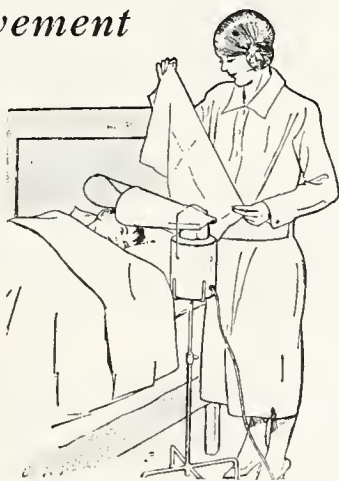
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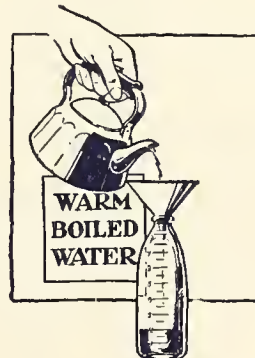


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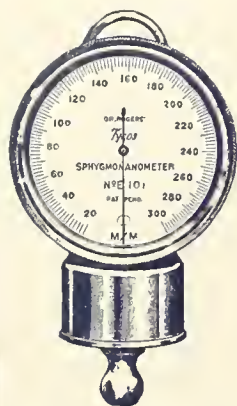
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APRIL 25-28, 1927



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APRIL·1927

Number 4

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VOLUME XXVI

APRIL, 1927

No. 4

Subscription prices, \$5.00 (\$6.00 for foreign countries); single copies, 50 cents.

Acceptance for mailing at special rate of postage provided for in Section 1103, Act of October 3, 1917, authorized August 10, 1918.

VOLUMES begin with the first of January and the first of July. Subscriptions may commence at any time.

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Modern Practice of Pediatrics. By William Palmer Lucas. Review copy by courtesy of the publishers, The Macmillan Company, New York.

Chininum. Review copy by courtesy of the Bureau for increasing the Use of Quinine, Amsterdam.

Clinical Neurology (largely based upon the book by Prof. Dr. Hans Curschmann). By Edward A. Strecker and Milton K. Meyers. Review copy by courtesy of the publishers, P. Blakiston's Son & Company, Philadelphia.

Mineral Waters of the United States and American Spas. By William Edward Fitch. Review copy by courtesy of the publishers, Lea & Febiger, Philadelphia.

This Business of Operations. By James Radley. Review copy by courtesy of The Digest Publishing Company, Cincinnati.

Orange County Medical History. By C. D. Ball, M. D. Review copy by courtesy of the Orange County Medical Association.

Dental Materia Medica and Therapeutics. By Hermann Prinz (Sixth Edition). Review copy by courtesy of The C. V. Mosby Company, St. Louis.

The Surgical Treatment of Goiter. By Willard Bartlett. Review copy by courtesy of the publishers, The C. V. Mosby Company, St. Louis.

Preventive Medicine and Hygiene. By Milton J. Rosenau (Fifth Edition.) Review copy by courtesy of the publishers, D. Appleton & Company.

Preliminary Report of Commission on Medical Education. Review copy by courtesy of the Commission, 215 Whitney Avenue, New Haven, Connecticut.

Health Supervision and Medical Inspection of Schools. By Thomas D. Wood and Hugh Grant Rowell. (Illustrated.) Review copy by courtesy of the publishers, W. B. Saunders Company, Philadelphia.

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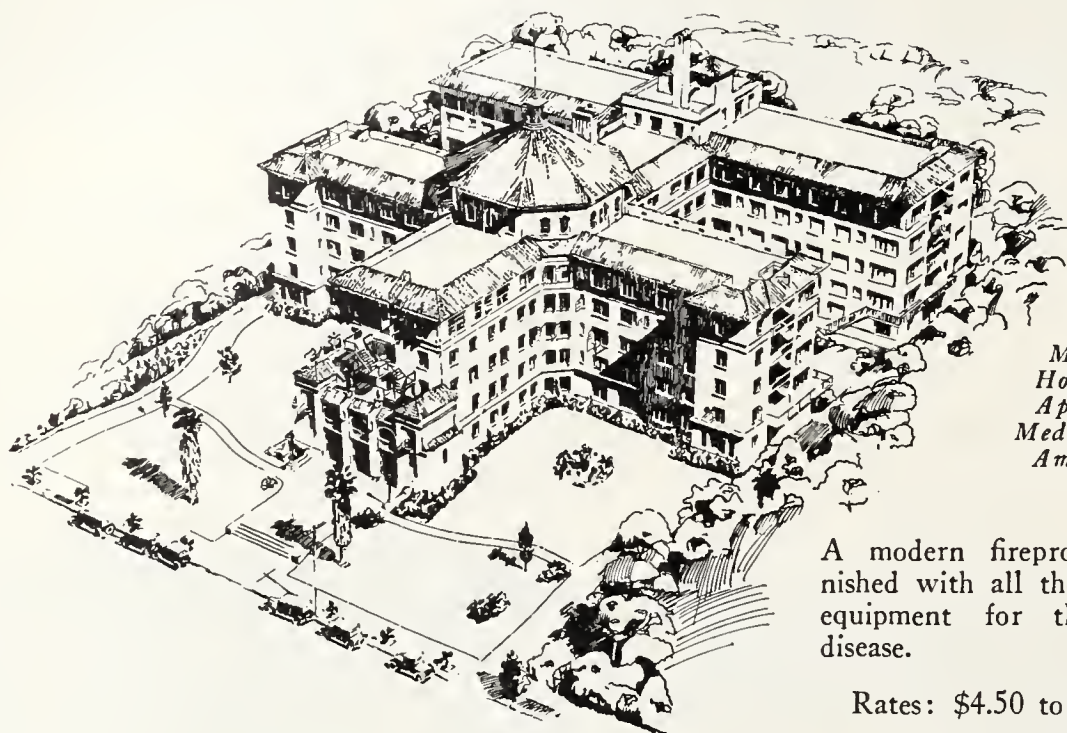
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Some Miscellaneous Nostrums—The A. M. A. Chemical Laboratory reports the analysis of the following: Bal-zone Treatment for Tuberculosis, exploited by one N. L. Waelchli, Denver, Colorado, appeared to be essentially a little colored water into which a few drops of some volatile oil, similar to pine oil, was to be dropped, the water brought to a boil, and the steam inhaled. Spray-O-Zone, exploited by the Coral Chemical Company, Inc., Buffalo, New York, appeared to be essentially borax and potassium chlorate dissolved in water. Boals Rolls, exploited by the Boals Rolls Corporation, New York City, consisted of large tablets found to contain starch, figs, and phenolphthalein. Harriet Hubbard Ayer's Face Cream, manufactured by Harriet Hubbard Ayer, New York, was found to contain ammoniated mercury and zinc oxide.—*Journal A. M. A.*, February 12, 1927, p. 501.

Lukosine not Acceptable for N. N. R.—The Council on Pharmacy and Chemistry reports that "Lukosine" is an "antiseptic Vaginal Douche Powder" manufactured by The National Drug Co., Philadelphia. In the advertising the preparation is said to contain "the valuable antiseptic constituents of Thyne, Peppermint, Eucalyptus, Wintergreen with Boric Acid, Alum, Zinc Sulphate, Hydrastine Hydrochloride, Sodium Salicylate, and Phenol." Extravagant claims for the efficiency of Lukosine are contained in the advertising. Preparations similar to Lukosine have been offered to the medical profession and to the public for many years. The Council found Lukosine unacceptable for New and Nonofficial Remedies because it is a semisecret, needlessly complex, and therefore irrational, mixture, marketed with a therapeutically suggestive name and with unwarranted claims, in such a way as to lead to its indiscriminate and ill-advised use by the public.—*Journal A. M. A.*, February 26, 1927, p. 667.

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IN the Dec. 11th issue of the Journal of A. M. A. were printed the Official Rules of the Council of Physical Therapy of the American Medical Association. These official rules "have been adopted primarily with the view to protecting the medical profession and the public against fraud, undesirable secrecy and objectionable advertising in connection with the manufacture and sale of apparatus and methods for physical therapeutic treatment."

Quoting further from the A. M. A. Bulletin of the House of Delegates: "It is hoped that the medical profession will give consistent support to this effort for sound therapy. Physicians may well follow in their choice of apparatus and in their work the opinions of the Council on Physical Therapy as to what is reliable."

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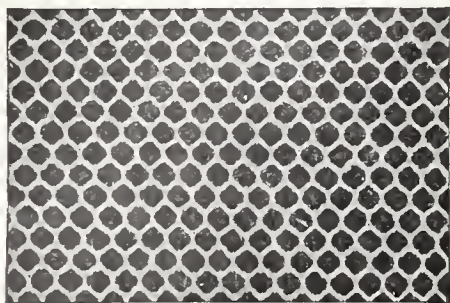
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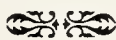
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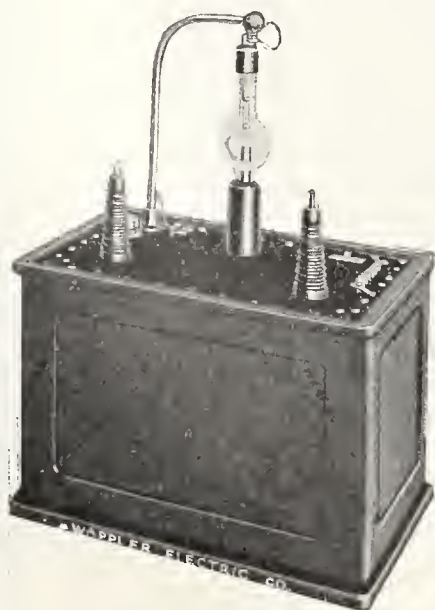
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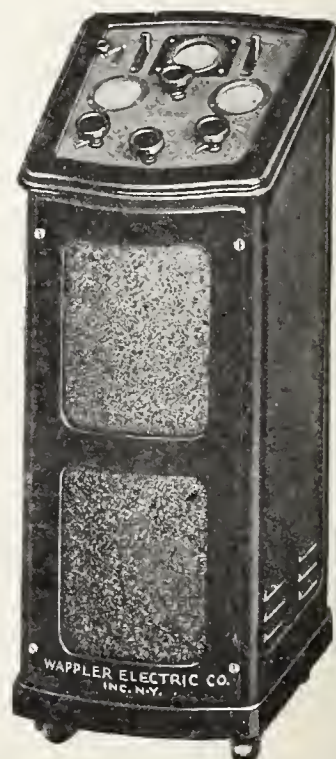
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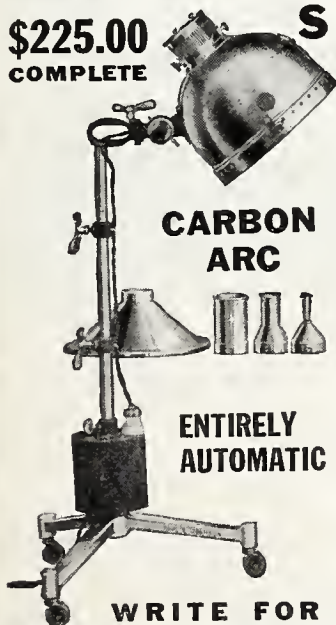
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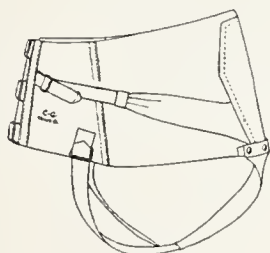
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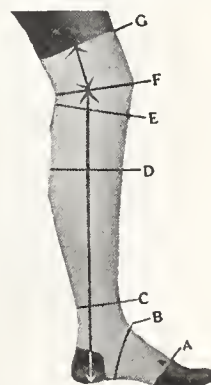


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CALIFORNIA AND WESTERN MEDICINE

VOLUME XXVI

APRIL, 1927

No. 4

A PRE-CONVENTION MESSAGE FROM PRESIDENT McARTHUR

THE fifty-sixth annual meeting of the California Medical Association will open in Los Angeles, April 25, 1927, and continue in session for four days. The Program and Arrangement Committees have prepared a really interesting feast, and your president extends this official invitation to you to be present. We have secured men of international reputation for the program, and in addition it is fully expected that the Secretary of the Interior, Dr. Hubert Work, and the Surgeon-General, Dr. Hugh Cumming, will be with us during the convention. These will be four of the most important days in the year to every ethical physician in California. They will mean much, too, to the medical men of adjacent states and territories who also are cordially invited.

The man who does not attend these annual gatherings of his profession never realizes his loss, but he who is in the habit of being present and cannot, feels like making this notation in his diary: "Lost four precious medical convention days, each containing much of priceless value to me; no reward is offered for they are gone forever."

Medical knowledge accumulates with increasing rapidity as the years go by. The field of scientific medical literature is too large for any one individual to survey intelligently. The surest way to keep in touch with what has been accomplished, the best way to learn of the things that are of value, whether new or old, is through contact and discussion with your fellow practitioners.

The atmosphere of a convention is usually charged with new ideas and stimulates us to co-ordinate our own methods with the best in modern medicine. Apart from the scientific information one obtains at these meetings there is an added something of worth in the way of relaxation and sociability. In the field of scientific endeavor the tendency is to develop into specialties, but there is a larger field in which every educated, ethical physician can meet with profit on common ground—a field where the spirit of comradeship prevails, the field of mutual interest and good fellowship. The members of the California Medical Association are one big family—meeting once a year for "a feast of reason and a flow of soul."

Nothing is being left undone to make this the greatest meeting in the history of our Association. You should take advantage of your opportunity. Come with us and obtain your share of the profits accruing from the recent advancement in medical science and, at the same time, unite with your colleagues to make the gathering memorable by spreading a warming glow of professional fraternity.



WILLIAM TAYLOR McARTHUR
President California Medical Association
1926-1927



WILLIAM EVERETT MUSGRAVE

1869-1927

Brother, generous friend and genial fellow-worker, Dr. Musgrave spent his days in following out the highest humanitarian ideals. The work that he did in the survey of California hospitals alone would entitle him to the grateful remembrance of his fellow citizens. Through his unceasing and unselfish efforts as editor of *California and Western Medicine*, he brought the journal to the front rank of state medical publications in this country. But his crowning achievement was his contribution to knowledge in the field of medical research, for which he was starred in "American Men of Science," thus placing him among the one thousand investigators whose work, by the decisive vote of other scientists, has been of the greatest service to humanity.

*"A life so fine, with service as its cue,
Such tireless efforts for the sick forlorn,
That tongue nor pen can render homage due,
Save to thank God that such as he was born."*

BLOOD TRANSFUSION IN PERNICIOUS ANEMIA

By ERNEST H. FALCONER *

(From the Medical Department, University of California Medical School)

DISCUSSION by Arthur L. Bloomfield, San Francisco; Roy E. Thomas, Los Angeles; Ernest S. du Bray, San Francisco.

A CRITICAL analysis of the status of blood transfusion in pernicious anemia is presented in order to emphasize certain limitations of this method of treatment, and not with the purpose of minimizing the usefulness and importance of this procedure. The question always comes up for consideration as soon as the diagnosis of pernicious anemia is established. The laity seems to have a general impression that blood transfusion is of lasting value, if not actually curative, in this disease, and too often the family and relatives of a patient press the physician in charge for early decision and action. What should be our attitude concerning this important question? Certain features of the disease must be borne in mind in helping to form a decision. An important fact to remember is that the anemia present is only one manifestation of the disease and the underlying cause of this anemia is unknown. A blood transfusion does not remove this underlying cause, and it seems quite probable that the underlying cause is little influenced in any manner by this procedure. It has never been clearly shown that transfusion prolongs the life of a patient with pernicious anemia.

Jones,¹ in a recent contribution states, "what appears to be a cure in an occasional patient can be brought about by repeated small transfusions of from 100 to 450 cc. of whole blood at four-day intervals." This article is characterized by a tone of optimism somewhat at variance with the opinion of clinicians of extensive experience, as Richard Cabot² and Billings.³ To quote from Cabot, "I do not myself believe that the modern habit of treating pernicious anemia with transfusions prolongs life." Billings, in an interesting article on the present-day opportunities for the general practitioner, speaks as follows concerning pernicious anemia: "Under ordinary, good, rational management, with attention paid to the diet, the avoidance of fatigue and other hygienic measures, the patient's life will be conserved, as a rule, quite as long as if he submitted to all the modern measures practiced, including splenectomy and blood transfusions." Landis⁴ distinctly condemns transfusion in pernicious anemia. He refers to Lichty's discussion on this subject in the *Therapeutic Gazette* (July, 1926). Lichty is of the opinion that such patients with transfusions will die sooner than those without, because each patient has a certain number of remissions to look forward to and transfusion simply hurries him through the entitled number of remis-

sions. He admits, however, that in a case with immediate danger a transfusion may tide a patient over the crisis. Evans,⁵ in his book on pernicious anemia just published, states: "If one expects too much from blood transfusion he will be disappointed. An analysis by Bloomfield to determine what benefit, if any, is to be derived from this method of treatment showed that life was not prolonged by it."

In order to appreciate the limitations of blood transfusion in the syndrome called pernicious anemia, we must enlarge our conception of this syndrome beyond the idea that it is due to a primary disease of the bone marrow, with all the symptoms secondary to the anemia present. We are, on the contrary, dealing with a systemic intoxication of widespread distribution involving at least the gastrointestinal tract, the nervous system, the liver, kidneys, and heart, as well as the blood-forming organs. The blood may not show any marrow disturbance until the disease has been present for some time, and only then, when the toxin or hemolytic agent begins to destroy blood cells in excess of the ability of the blood-forming organs to put out new cells. It is this hemolysis or destruction of the red cells, plus a depressing or inhibiting effect of the toxic agent on the bone marrow that causes the blood picture associated with the disease. This same blood picture is seen in certain cases of syphilis, of malignancy, and also in sprue. When a remission occurs in pernicious anemia the toxic agent is apparently neutralized or ceases to be formed, and then the bone marrow, left free to work unimpeded, seems to have plenty of materials and soon replenishes the circulating blood. If it has not been permanently damaged or crippled it may be able to regenerate an almost normal number of formed elements in the blood.

These remissions are fairly characteristic and constant in every case of pernicious anemia; just how they are brought about is not known. Our efforts at treatment are usually directed toward supporting a patient through a relapse until a remission occurs. Can transfusion during a relapse check the progress of such a relapse and bring about a remission? The evidence on this point is not entirely convincing because the mechanism of a remission is not understood. They occur without any treatment, and quite satisfactory remissions may occur after very serious relapses. Minot⁶ expresses the opinion that the chances of a spontaneous remission occurring when a case is seen in relapse is in the vicinity of 35 per cent. Transfusion in all types of pernicious anemia taken together appears to bring about 10 to 20 per cent more remissions than occur spontaneously. One of our clinic cases was admitted to the Medical Service of the University of California Hospital in 1924, in coma and with pulse so feeble that he was considered "in extremis." He had been under observation about eighteen months and was found to have considerable hemolysis. At intervals during this period transfusions had been given with only slight temporary benefit. When he entered in such critical condition that it seemed only a matter of a few hours before the end, it was decided not to transfuse him. Instead of death during the night the morning brought some improvement, although he was delirious and very restless. By the third day, after admission, he was sitting up reading the news-

* Ernest H. Falconer (384 Post Street, San Francisco). M. D. C. M. Univ. of McGill Medical School. Graduate study: 1911 to 1914, Montreal General Hospital, Internal Medicine and Pathology; 1914 to 1916, Resident in Medicine, University of California Hospital. Present hospital connections: Visiting physician, University of California Hospital; consultant in medicine, Chinese Hospital. Present appointments: Associate clinical professor of medicine, University of California Medical School. Practice limited to Internal Medicine.

paper and his bone marrow response was one of the most remarkable we have ever witnessed. The reticulated cells ran as high as 80 per cent of the total number of red cells. His remission was very satisfactory and lasted for over a year. This case is cited to show the difficulty in deciding just how much transfusions accomplish. Had we given this patient a transfusion it would have received much more credit than it deserved. The data at our disposal indicates that transfusion may assist in bringing about a remission and may, in some cases, check the progress of a relapse. There are no definite contraindications to transfusion except questionable compatibility of the blood. We know, however, that after several transfusions the recipient develops antibodies to the donor's blood and serious reactions may take place. Bowcock⁷ has shown that the number of transfusions a patient may take are limited. At times, after ten or twelve transfusions, a recipient may develop agglutinins to the cells of any donor's blood. In such case one has to resort to intramuscular administration of blood. At times, after several transfusions, the recipient may develop antibodies or agglutinins for the donor's blood and the incompatibility may not show in the "blood-matching" tests. Then again, serious reactions will sometimes occur after proper grouping and "blood matching." These, fortunately, are very rare.

It seems unwise to give a transfusion in the face of active hemolysis, unless special features in the case demand it. A good index of hemolysis is the Van den Berg test in the serum or the Schleissenger test for urobilin in the urine. The intense, lemon-yellow color of the patient, with palpable enlargement of the spleen, are clinical evidences of increased hemolysis. Where hemolysis is active the blood from the transfusion may be destroyed in a short time. When a patient is extremely weak, with blood very low, it is a question of clinical judgment whether transfusion should be done, especially if the patient is seen for the first time. Even a slight reaction might be sufficient to cause a fatal termination.

When a case is studied for the first time, and it is noted that the reticulated cells are above 2 per cent and are increasing, this may be taken as a sign that the marrow is actively regenerating. These reticulated red cells are readily brought out by staining a drop of fresh blood with .5 per cent alcoholic solution of brilliant creyl blue. Slides may be prepared by spreading the creyl blue on the slide and allowing the solution to evaporate, leaving the dry stain behind. These slides are kept on hand for use as desired. If, in addition to an increase of reticulated red cells, the proportion of neutrophyles is increasing, the eosinophylic proportion is rising, and the platelets increasing, a remission may be predicted, and it is sometimes better in the event of such evidence not to resort to transfusion. A sudden accession of transfused blood at such period may cause the marrow to cease its activity for a time. The physiological stimulus to the bone marrow of a marked deficit in the manner of red cells and hemoglobin is the greatest stimulus that can possibly be applied, and to have recourse to blood transfusion in the hope of stimulating still further the production of blood cells is too much like "whipping up" the tired horse who is already doing his utmost. A

small transfusion of 200 or 300 cc. of whole blood may be of value after a remission is in progress, in furnishing the system with materials for building the stroma of red cells. Whipple⁸ has emphasized the necessity for materials for building the stroma of cells in pernicious anemia. In transfusion the new blood may furnish complement and certain antibodies to neutralize the toxins present in the recipient's blood. When a patient is having distressing symptoms referable to the gastrointestinal tract, as vomiting, anorexia and diarrhea, and is extremely weak and dyspnoeic, a transfusion may alleviate these symptoms and make for greater comfort. There seems also to be some evidence that the remissions occurring after transfusion may be of longer duration and of somewhat better character as to the patient's general condition and strength than where transfusion is not employed. This is especially true where previous remissions have not been of a satisfactory character. There is a definite place for transfusions in the treatment of pernicious anemia, but they should not be used before a carefully worked out diagnosis has been made and they should never be given without thoughtful consideration as to the needs of the patient. The possibility of an unsatisfactory result should be explained to those responsible for the care of the patient. There seems to be a justifiable hope that the treatment of pernicious anemia by diet, as recommended by Minot,⁹ will cut down the need for transfusion. The ability to bring on a remission by means of this special diet, obviating the necessity of transfusions, would constitute a distinct advance in treatment of this disease.

SUMMARY

There is no convincing evidence that transfusions prolong the life of a patient with pernicious anemia. They may be employed to bring on or hasten a remission, especially when the clinical progress of the patient is more or less stationary. It is probably better when a remission is imminent not to give a transfusion, as this may have the effect of slowing up the efforts of the bone marrow. It should be remembered that the number of transfusions which a given patient may take is limited, therefore they should not be used without some definite indications.

REFERENCES CITED

1. Jones, Harold W.: *Jour. A. M. A.*, Vol. 86:1673, May, 1926.
2. Cabot, R. C.: *Case Records, Massachusetts General Hospital*, February 27, 1923.
3. Billings, Frank: *Jour. A. M. A.*, Vol. 80:523, 1923.
4. Landis, H. R. M.: *Progressive Medicine*, 4:334, 1923.
5. Evans, Frank A.: *Pernicious Anemia*, The Williams and Wilkins Company, Baltimore, 1926, p. 140.
6. Minot, G. R.: *Oxford Medicine*, Oxford University Press, 1920, II, p. 669.
7. Bowcock, H. M.: *Bull. Johns Hopkins Hospital*, 32:83, 1921.
8. Whipple, G. H.: *Arch. of Internal Medicine*, Vol. 29:728, June, 1922.
9. Minot, G. R., and Murphy, W. P.: *Jour. A. M. A.*, Vol. 87:470, August, 1926.

DISCUSSION

ARTHUR L. BLOOMFIELD, M. D. (Stanford Medical School, San Francisco)—I am quite in accord with the general results of Doctor Falconer's paper.

Some years ago we analyzed¹ very carefully the re-

1. *Bulletin Johns Hopkins Hospital*, 1918, Vol. 29, p. 101.

sults of transfusion of blood in twenty-six patients with pernicious anemia who were followed over long periods of time. One hundred and one transfusions were given and individual patients received from one to seventeen, the largest total amount of blood being 8700 cc. and the smallest 300 cc. The single transfusions varied in amount from 300 to 900 cc. The results of this analysis brought out no evidence that the total duration of life was prolonged by the treatment, nor did transfusions seem to be of definite value as an emergency measure in tiding patients over at a time when the blood count was very low. Of nine patients entering the hospital with blood counts of under a million and receiving transfusion, six improved and left the hospital and three, or 33 1/3 per cent, died; whereas of ten other patients with counts under a million who did not receive transfusion, eight improved and two, or 20 per cent, died.

The most important conclusion seemed to be that the time when transfusion is done is of particular importance. If the patient is in a refractory state, which is usually the case during the relapse, transfusion seems to have little effect. On the other hand, if performed at a time when the patient was not refractory (i. e., when spontaneous remission was imminent or had commenced), improvement seemed to be brought on in about one-half the cases, and it was possible to raise the blood count to a higher level than it usually reaches spontaneously. Such artificial plethoras did not increase the duration of the remission, although the patients usually had a sense of well-being while the count was high.

As Falconer points out, the anemia is evidently only one of a number of harmful effects which are produced by whatever agent is responsible for pernicious anemia, and it is quite obvious that transfusions at best can do no more than aid in temporary improvement in selected cases.

ROY E. THOMAS, M.D. (1136 West Sixth Street, Los Angeles)—In the treatment of any disease it is difficult to see how the patient can be permanently benefited by a therapeutic measure directed against one of its symptoms.

Falconer has clearly shown in his paper that transfusion of blood does not materially prolong life in the great majority of cases of pernicious anemia in which it is used. He has gone a step further and given theoretical reasons for believing that no better results could be expected.

For obvious reasons it is particularly difficult to determine the value of any therapeutic measure in a disease which is characterized by spontaneous remissions. Only by such careful blood studies as Falconer has made can the reaction of the bone marrow to transfusions in pernicious anemia be determined and thus enable us to avoid their use when they are likely to prove of no benefit or even harmful.

I do not believe we are ready to dispense entirely with transfusions in pernicious anemia. Falconer states that they bring about 10 to 20 per cent more remissions than occur spontaneously. If this is true life is probably prolonged in some instances, for Lichty's view that every case of pernicious anemia has just so many remissions to look forward to seems absurd. Also many times transfusions seem to add much to the comfort of the patient and are thus quite worth while.

However, I have recently had the opportunity to observe for a considerable period three cases of pernicious anemia which had presented symptoms of the disease for 8, 12, and 15 years, respectively. One had a splenectomy followed by hydrochloric acid in large doses. The second had many transfusions which seemed to add much to her comfort. The third who has had neither splenectomy nor transfusions is the only one left alive to eat liver.

ERNEST S. DU BRAY, M.D. (University of California Medical School, San Francisco)—Falconer's timely warning about the thoughtless use of blood transfusion in the treatment of pernicious anemia is but a reflection of the opinion of many of the most careful students of the hematopoietic diseases. He has defined quite clearly the limitations of its use and at the same time he indicates certain pitfalls which may attend the method. It is pleasing to see that he stresses the point that the decision for

or against transfusion is frequently a matter which demands extremely sound clinical judgment. Another important phase which he mentions and which I feel is worth re-emphasizing is the possibility of a severe reaction in a patient who, because of repeated transfusions, has developed antibodies for compatible bloods. It is now agreed that transfusion never cures pernicious anemia, and the patients in whom the best results are obtained are those who are most likely to have a spontaneous remission and who react best to any treatment. The procedure must be regarded as a useful and often effective method for the alleviation of distressing subjective symptoms, and in rare and carefully selected cases may even be a life-saving measure.

CHRONIC APPENDICITIS

A STUDY OF 202 CONSECUTIVE CASES

By HERSEL E. BUTKA *

"THERE are two types of appendicitis," says one author, "one acute, and the other for revenue only," while some others ask the question, "Is chronic appendicitis a myth?"

Investigators are at variance as to the pathological findings in chronic appendicitis. Ribberts states that the normal appendix is always empty, while Aschoff claims that 62 per cent of normal appendices contain feces. Roentgen ray examination shows that the appendix fills, empties, and alters its shape periodically. There may be pathological conditions present that cannot be proved by the anatomist or histologist, but can be demonstrated roentgenologically by the finding of a large open canal which fills easily but is unable to properly empty and retains this material over long periods of time.

The rôle of hard fecal material and foreign bodies in the pathogenesis of chronic appendicitis is somewhat disputed, but probably should be recognized. Because of the well-known frequency of these bodies in acute appendicitis, their presence will be considered proof of chronic appendicitis in this paper.

Eastman states that many cases of so-called chronic appendicitis must be considered as due to malposition, adhesions and kinks, with little microscopic pathology. Aschoff's description of changes in chronic appendicitis enumerates the findings briefly as "stenosis, induration of wall, retention of mucus, fecal masses, adhesions and kinking." He believes that chronic appendicitis is never primary but is always due to a previous acute attack or attacks, many times occurring during childhood and simply called "stomach ache."

According to Mallory, "during repair, the appendix is often infiltrated with numerous eosinophiles, and the lymph vessels filled with lymphocytes. The appearance presented by appendices in the various stages of repair is often spoken of as chronic appendicitis, but this term is not justified."

The microscopic appearance of the appendix varies normally. The coats vary in thickness with age. Lymphoid tissue is greatest in the young, while

* Hersel E. Butka (314 North State Street, Los Angeles). M. D. College of Medical Evangelists. Director of Laboratories, White Memorial Hospital and Roosevelt Hospital; Associate Professor of Pathology, College of Medical Evangelists. Previous publications: Four short articles published in the A. M. A. Journal, Laboratory and Clinical Medicine, and California and Western Medicine. Practice limited to Clinical Pathology.

| CHART No I | | NUMBER | SEX | | TEMP. | | SYMPTOMS | | | | LABORATORY FINDINGS | | | | | |
|-----------------------|----|--------|-----|-----|--------|-----------|-----------|-----------|----------|----------|---------------------|--------|-----------|------------------------|--------------|------------------------------|
| NATURE OF CASES | | | M | F | NORMAL | INCREASED | TENDERNES | PAIN-ABD. | RIGIDITY | VOMITING | WHITE BLOOD COUNT | | | | WASSERMANN + | WALKER'S INDEX OF RESIST. |
| | | | | | | | | | | | NUMBER | NORMAL | INCREASED | PERCENT POLYNUCLEAR | | |
| | | | | | | | | | | | | | | | | |
| 1 APPENDICITIS | No | 81 | 30 | 51 | 29 | 52 | 68 | 51 | 47 | 21 | 12,667 | 40 | 41 | 79 | 2 | -2.3 |
| | % | 40 | 37 | 63 | 36 | 64 | 84 | 63 | 58 | 26 | | 49 | 51 | | 2.4 | |
| 2 CHOLECYSTITIS | No | 12 | - | 12 | 9 | 3 | 7 | 6 | 1 | 1 | 11,100 | 8 | 4 | 75 | 0 | -1 |
| | % | 5.9 | - | 100 | 75 | 25 | 58 | 50 | 8.3 | 8.3 | | 66 | 34 | | 0 | |
| 3 SALPINGITIS | No | 14 | | 14 | 7 | 7 | 10 | 14 | 2 | 5 | 12,700 | 6 | 8 | 82 | 1 | -1.5 |
| | % | 6.9 | | 100 | 50 | 50 | 71.5 | 100 | 14 | 35 | | 43 | 57 | | 7 | |
| 4 UTERINE SURGERY | No | 25 | | 25 | 13 | 12 | 18 | 12 | 2 | 6 | 8,700 | 17 | 8 | 76 | 3 | -3.5 |
| | % | 12.3 | | 100 | 52 | 48 | 73 | 48 | 8 | 24 | | 69 | 32 | | 12 | |
| 5 HERNIA | No | 7 | 4 | 3 | 4 | 3 | 1 | 1 | 0 | 1 | 7,500 | 6 | 1 | 65 | 1 | - |
| | % | 3.4 | 57 | 43 | 57 | 43 | 14 | 14 | 0 | 14 | | 86 | 14 | | 14 | |
| 6 MISCELLANEOUS | No | 63 | 5 | 58 | 31 | 32 | 22 | 26 | 5 | 6 | 9,250 | 42 | 21 | 75 | 3 | -3.5 |
| | % | 31.2 | 8 | 92 | 49 | 51 | 34 | 41 | 8 | 9.5 | | 66.6 | 33.3 | | 5 | |
| | | | X | X | X | | X | X | X | X | | | | | | |

it atrophies in later years. Similar changes to a minor degree occur in the other coats.

With this brief introduction the following questions present themselves for our study:

(1) Is chronic appendicitis a clinical or pathological entity? (2) What changes are found in the atrophic and obliterated appendix? (3) Is the presence of eosinophiles in the apparently normal and so-called chronic appendicitis a pathological change? (4) Can chronic appendicitis be determined from a microscopic study of the organ?

This paper is a review of 202 consecutive surgical cases with appendectomy occurring in the White Memorial Hospital during a period of approximately two years. It was inspired by my study of many appendiceal sections that I might arrive at some conclusion as to the microscopic appearance of a normal appendix.

The cases are grouped as: (a) appendices removed from patients with clinical chronic appendicitis; (b) appendices in which operation was secondary to gall bladder disease; (c) appendices in which removal was secondary to inflammatory pelvic disease (salpingitis, etc.); (d) appendices removed during operation on uninfamed pelvic organs (uterus, etc.); (e) appendices removed during repair of hernia; and (f) miscellaneous.

Is chronic appendicitis a clinical or a pathological entity? In comparing the first group of the chart, which covers eighty-one patients diagnosed and operated on for chronic appendicitis without a change in diagnosis following operation, with the remaining series, I find a definite increase in average diameter of the appendix, as well as the number containing

feces. There is apparently no variation in the number containing fecoliths. A few contain foreign bodies. A greater percentage show adhesions, kinks, Jackson's veil, or obliterative and atrophic changes. However, the differences between those appendices definitely normal as far as symptomatology is concerned, and those diagnosed as chronic appendicitis, are not marked. The finding of adhesions, kinks, Jackson's veil, hard feces, foreign bodies and mucus would account for only 34 per cent of those diagnosed as chronic appendicitis, while in Groups 4 and 6 there are 40 per cent and 41 per cent, respectively, revealing some of these changes.

In view of these findings I conclude that chronic appendicitis must be frequently functional, and is more of a clinical than a pathological entity.

Can chronic appendicitis be determined by a microscopic study of sections? An acute inflammation can be diagnosed by the presence of large numbers of pus cells throughout the tissue with varying numbers of other cells brought out later in the stage of repair, such as eosinophiles, round cells, plasma cells, and fibroblasts. A subacute inflammation is diagnosed in much the same way, but when we attempt to determine the earmarks of a chronic inflammation of the appendix we immediately encounter difficulties which appear to be insurmountable. The mucosa and lymphoid coats of the appendix undergo many changes during life which must be considered within normal limits.

In studying appendices microscopically, eosin-

| CHART No II MACROSCOPIC | | NATURE OF CASES | NUMBER | SIZE | CONTENTS | | | | | ADHESIONS ETC | | | | | TOTAL GROSS PATHOLOGY | | |
|----------------------------|-------------------------|-----------------------|--------|--------------|----------|-----------------------|------------|-----------|----------------|---------------|------|------|-------|----------------|--|---------|--------|
| | | | | | — | MUCUS-BLOOD OR PUS | THIN FECES | FECOLITHS | FOREIGN BODIES | — | + | + | KINKS | JACKSON'S VEIL | ATROPHIC CHANGES OB- LITERATIVE | PRESENT | ABSENT |
| 1 | APPENDICITIS CHRONIC | No | 81 | 6x.9 cm | 15 | 20 | 38 | 6 | 2 | 59 | 9 | 9 | 4 | 2 | 4 | 28 | 53. |
| | | % | 40 | | 18.5 | 24.6 | 47 | 7.4 | 2.4 | 73 | 11.1 | 11.1 | 5 | 3 | 5 | 34 | 66 |
| 2 | CHOLECYSTITIS | No | 12 | 7.3x.6 cm | 6 | 2 | 3 | 1 | | 10 | — | — | — | 2 | 3 | — | — |
| | | % | 5.9 | | 50 | 16.6 | 25 | 8.3 | 0 | 83 | — | — | — | 16 | 25 | — | — |
| 3 | SALPINGITIS | No | 14 | 5x.8 cm | 3 | 4 | 7 | | | 8 | 3 | 3 | 1 | — | 3 | — | — |
| | | % | 6.9 | | 21.4 | 28.5 | 50 | 0 | 0 | 57 | 21.4 | 21.4 | 7 | — | 21 | — | — |
| 4 | UTERINE SURGERY | No | 25 | 5.5x.6 cm | 5 | 3 | 14 | 3 | | 21 | 2 | 1 | — | 1 | 1 | 10 | 15 |
| | | % | 12.3 | | 20 | 12 | 56 | 12 | 0 | 84 | 8 | 4 | — | 4 | 4 | 40 | 60 |
| 5 | HERNIA | No | 7 | 6.3x.6 cm | 2 | 2 | 2 | 1 | | 7 | — | — | — | — | 1 | — | — |
| | | % | 3.4 | | 28.5 | 28.5 | 28.5 | 14.2 | 0 | 100 | — | — | — | — | 14 | — | — |
| 6 | MISCELLANEOUS | No | 63 | 5.7x.7 | 20 | 17 | 17 | 7 | 2 | 56 | 4 | 2 | 1 | — | 3 | 26 | 37 |
| | | % | 31.2 | | 31.7 | 27 | 27 | 11 | 3.1 | 88.8 | 6.3 | 3 | 1.5 | — | 4.7 | 41 | 59 |
| | | | | | x | x | x | x | x | x | x | x | x | x | x | x | x |

ophiles are found in large numbers, located chiefly in the mucosa. Occasionally there is found a few polynuclear leukocytes. My records reveal no noticeable difference in these findings in clinically diagnosed chronic appendicitis, and Groups 2-6 of my series. Leukocytes are never numerous in the mucosa and deeper tissues and only slightly more frequent in chronic appendicitis than in the control groups of apparently normal appendices.

A study microscopically of the thickness of the various histological layers of the appendiceal wall reveals no variation in the lymphoid and submucous coats and only a slight thinning of the muscular coat.

The microscopical findings in chronic appendicitis as diagnosed clinically fail to reveal anything pathologically specific, or that are not found in appendices without symptoms.

What changes are found in the obliterated and atrophic appendix? The number in this class is too small for definite conclusions. In this study, however, the percentage with these changes is higher in Groups 2-6 than in Group 1 with clinically chronic appendicitis. Of the fifteen patients of all the groups the history reveals a previous acute attack in at least twelve. With an 80 per cent positive history, and our knowledge of the degenerative changes occurring in the lining of this organ during an acute attack, it may be readily seen how the destroyed mucosa is replaced by adhesion of the raw surfaces

and obliteration of the lumen. Apparently only a small percentage of these appendices cause further symptoms, and microscopically no evidence of inflammation remains other than obliteration of the lumen.

What is the rôle of eosinophiles in the normal and chronic appendicitis? Eosinophiles in the tissues are usually looked upon as a sign of chronic inflammation. They are found in the lymph nodes of Hodgkin's disease, in the cervix associated with inflammatory lesions and malignancy, and in the walls of pus tubes and infections of the gonorrheal type. They are also found in the secretions of bronchial asthma, in polypi, and inflammation of the mucous membranes of the nose and throat, as well as in many other conditions.

Eosinophiles were present in the mucosa of all my cases in Group 1, while in Groups 2-6 they are found in over 95 per cent. With further sections and study this percentage would be somewhat higher, as I have failed to find an appendix which possesses a mucosa in which varying numbers of eosinophiles cannot be demonstrated. The conclusion seems obvious, therefore, that eosinophiles in the appendiceal mucosa is a normal condition, or that over 95 per cent of people generally suffer from chronic appendicitis. On the other hand, if eosinophiles in the appendiceal mucosa does not always denote inflammation there must be some reason for their invariable presence. They may be associated with the protective mechanism or with the glands of internal

| CHART No. III MICROSCOPIC | | NUMBER | MUSCLE COAT | | | SUBMUCOSA | | | LYMPHOID | | | | MUCOSA | | | | | | | | DEEP INFILTRATION OF EOSINOPHILS | |
|------------------------------|----|--------|-------------|------|----|-----------|------|----|----------|------|----|----|--------------|-----|----|----|--------------|----|----|------------|-------------------------------------|---|
| | | | NORMAL | THIN | + | NORMAL | THIN | + | NORMAL | THIN | + | + | EOSINOPHILES | | | | POLYNUCLEARS | | | | | |
| | | | | | | | | | | | | | 1 | FEW | + | + | + | + | 1 | OCCASIONAL | | + |
| | | | | | | | | | | | | | | | | | | | | | | |
| NATURE OF CASES | | | NORMAL | THIN | + | NORMAL | THIN | + | NORMAL | THIN | + | + | 1 | FEW | + | + | + | + | 1 | OCCASIONAL | + | |
| | | | | | | | | | | | | | | | | | | | | | | |
| 1 APPENDICITIS CHRONIC | No | 81 | 18 | 25 | 23 | 28 | 10 | 43 | 27 | 9 | 23 | 12 | 0 | 8 | 17 | 31 | 17 | 14 | 6 | 61 | 23 | |
| | % | 40 | 27 | 38 | 35 | 35 | 12 | 53 | 38 | 12 | 32 | 17 | 0 | 11 | 23 | 42 | 23 | 17 | 7 | 47 | 28.3 | |
| 2 CHOLECYSTITIS | No | 12 | 4 | 4 | 3 | 2 | 6 | 4 | 5 | 3 | 4 | 5 | 3 | 1 | 2 | 2 | 4 | 6 | 2 | 4 | 4 | |
| | % | 5.9 | 36 | 36 | 27 | 17 | 50 | 33 | 41 | 25 | 34 | 25 | 8 | 16 | 5 | 16 | 33 | 50 | 16 | 5 | 33 | |
| 3 SALPINGITIS | No | 14 | 1 | 4 | 9 | 5 | 3 | 6 | 3 | 1 | 7 | 3 | 2 | 1 | 5 | 3 | 3 | 7 | - | 7 | 2 | |
| | % | 6.9 | 7 | 28 | 64 | 36 | 21 | 42 | 21 | 7 | 49 | 21 | 14 | 7 | 35 | 21 | 21 | 50 | 0 | 50 | 14 | |
| 4 UTERINE SURGERY | No | 25 | 10 | 5 | 10 | 6 | 6 | 13 | 7 | 3 | 7 | 8 | 2 | 4 | 5 | 9 | 5 | 1 | 21 | 3 | 13 | |
| | % | 12.3 | 40 | 20 | 40 | 24 | 24 | 52 | 28 | 12 | 28 | 32 | 8 | 16 | 20 | 36 | 20 | 4 | 84 | 12 | 52 | |
| 5 HERNIA | No | 7 | 1 | 3 | 3 | 4 | 1 | 2 | 2 | 2 | 3 | - | 1 | 0 | 2 | 2 | 2 | 4 | 1 | 2 | 1 | |
| | % | 3.4 | 14 | 43 | 43 | 57 | 14 | 28 | 28 | 28 | 43 | - | 14 | 0 | 28 | 28 | 28 | 57 | 14 | 28 | 14 | |
| 6 MISCELLANEOUS | No | 63 | 15 | 19 | 29 | 13 | 12 | 38 | 26 | 7 | 18 | 12 | 3 | 2 | 19 | 23 | 16 | 15 | 6 | 42 | 15 | |
| | % | 31.2 | 24 | 30 | 47 | 20 | 19 | 60 | 41 | 11 | 29 | 19 | 4 | 3 | 30 | 36 | 25 | 24 | 9 | 68 | 24 | |
| | | | ✓ | × | × | × | × | × | × | × | × | × | × | × | × | × | × | × | × | × | × | |

secretion. There is no evidence to indicate internal secretion from the appendix. This brings up the question of, "what is the function of the appendix?" Many theories have been advanced, most of them promptly disproved, but I believe that if this subject were better understood the question of the eosinophiles would be answered. If the appendix secretes mucus the problem is simpler, as eosinophiles are very closely associated with mucus formation, and are found chiefly in mucous membranes. I conclude, therefore, that the presence of eosinophiles in the mucous membrane of the appendix is normal.

A few items of general interest are brought out by this study. Of the 202 consecutive cases 80 per cent were females. The blood count in chronic appendicitis gave an average of 12,660 white cells, and the percentage of polynuclears is somewhat elevated, while in Groups 4, 5, and 6, the leukocyte count is quite normal. The average count for cholecystitis and salpingitis approached that of chronic appendicitis.

Although this study is incomplete, I believe the findings justify at least in part the following conclusions regarding pathological conditions in appendices removed by operation:

1. Chronic appendicitis often is a clinical condition resting more on a functional than a pathological basis.

2. Obliterative and atrophic appendices are the result of previous acute pathological processes and

are not found in increased numbers in cases diagnosed clinically as "chronic appendicitis."

3. Eosinophiles in the mucosa of the appendix is no indication of chronic appendicitis, but is probably a link in the defensive mechanism and is normal.

4. Eosinophiles and leukocytes in the submucosa and muscularis is positive evidence of inflammatory changes in the appendix.

5. Chronic appendicitis cannot be determined in more than an extremely small percentage of instances by the histological examination alone.

6. Complete data on gross findings at operation are essential to a correct diagnosis.

REFERENCES CITED

- Mallory: Principles of Pathologic Histology, pp. 486-87.
 J. Schuitzer: So-Called Chronic Appendicitis, *Wien. Clin. Wchuschr.*, 38:1-24, January 22, 1925.
 C. H. Shutt: Pericolonic Adhesions as Factor in Diagnosis of Chronic Appendicitis, *J. Missouri M. A.*, 22:249-53, July, 1925.
 C. G. Mixer: Chronic Appendicitis in Childhood, *J. A. M. A.*, 83:967-71, September 27, 1924.
 J. R. Eastman: "Chronic Appendicitis—Is It a Myth?" *Surg. Gynec. Obst.*, 38:75-80, January, 1924.
 F. W. White: Clinical Importance of Chronic Changes in the Appendix Which are Discovered by Roentgen Ray, *Boston M. and S. J.*, 188: 587-93, April 19, 1923.
 C. Gargano: Muscle Fibers in Chronic Appendicitis, *Riforma. Med.* 38:817-18, August 28, 1922.
 H. G. Nicholson: Plea for the Normal Appendix, *West Virginia M. J.*, 15:244, January, 1921.

DISEASES AND ABNORMALITIES OF THE FEMALE URETHRA

By WILLIAM E. STEVENS, M. D.

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San Francisco Polyclinic)

The frequency with which pathologic conditions are found in the female urethra and the necessity for a careful examination of this organ in the presence of symptoms referable to the urinary tract is worthy of emphasis.

DISCUSSION by Nathan G. Hale, Sacramento; P. N. Jacobson, Oakland; Anders Peterson, Los Angeles; Herbert A. Rosenkranz, Los Angeles.

THE female urethra is too often considered merely as an avenue of approach to the bladder and upper urinary tract and the frequency of lesions of this organ completely overlooked in the consideration of the etiology of urinary disturbances so common in this sex. The fallacy of this conception is demonstrated by the large number of patients with urinary symptoms, due exclusively to pathological conditions of the urethra.

In Bugbee's¹ statistics, which comprise 1000 cases of frequency of urination in women, lesions of the urethra were present in 690 instances. In a study of the last 234 consecutive female patients complaining of various urinary disturbances that have come under my observation the urethra was wholly responsible for the symptoms in 56 and partly responsible in 173 instances.

The lesions encountered were: stricture in 120 patients, urethritis in 68, caruncle in 8, polypi in 7, papillomata in 5, prolapse in 2, hypospadias in 2, calculus in 1, and urethrocele or diverticulum in 1.

URETHRAL GLANDS

Contrary to popular opinion the female urethral mucosa contains a large number of small mucous glands and lacunae. These are more numerous anteriorly. On the posterior wall of the urethra, usually just within the external meatus, lie the two openings of Skene's glands. The orifice of another large gland on the anterior wall near the external meatus is frequently infected and should not be overlooked. Skene's glands are occasionally located outside the meatus. Additional paraurethral ducts and glands are sometimes found external to the urethral orifice. Contrary to the experience of some observers I find Skene's glands are often infected.

EXAMINATION OF THE FEMALE URETHRA

The urine should be held for several hours before examination if possible.

With the patient in the dorsal position the labia are separated at their upper margins with the thumb and index finger of the left hand and the meatus cleansed with sterile gauze. Pressure is then made on the meatus between the left thumb and right index finger and discharge, if any, obtained for examination. Following this the urethra is carefully palpated. It is then milked from behind forward and any excretion appearing at the meatus is transferred to glass slides by means of a platinum loop or cotton-tipped applicator for examination. Even in the absence of visible discharge urethritis is frequently present.

If properly performed, the two-glass test is a

valuable diagnostic procedure. Following thorough douching of the vagina and cleansing of the vulva the urine is passed into two glasses. With infection limited to the urethra, the first glass will be turbid, often contain threads, and pus cells will be found on microscopic examination. Unless the discharge is very profuse the second glass will be clear.

The urethra is next calibrated with olive-tipped bougies, and if a stricture is found it is treated as described under stricture of the urethra before further examination is made.

Following calibration the anterior third of the urethra is examined through a Moore skenescope. This instrument is also a most useful adjunct in the treatment of lesions of this portion of the canal.

The patient is then catheterized and in the absence of stricture placed in the knee-chest position for urethroscopy. I have found the McCarthy anterior urethroscope which has the lamp at its distal extremity, or the Kelly urethroscope using light reflected by means of a head mirror very satisfactory for this purpose.

Water dilating, near vision instruments, such as the McCarthy cystourethroscope or the Brown-Buerger universal cystoscope are most valuable for the deeper portion of the urethra. Papillomata, polypi, and other pedunculated growths which may lay against the urethral wall and may consequently be overlooked, will be seen floating in the field with these types of instruments. The detection of chronic urethritis without discharge, which is very common in women, is impossible without urethroscopy.

URETHRITIS IN THE FEMALE

Although usually caused by infection with the gonococcus, urethritis due to other organisms such as the colon bacillus is by no means uncommon. The proximity of the female urethra to the vagina and rectum often is responsible for ascending infections. In the examination of approximately 1064 women arrested for prostitution or vagrancy³ with gonorrhea of the cervix, urethra including Skene's glands or the Bartholin glands, the majority chronic, gonococci were found in the urethral secretion in 32 per cent. When gonorrhea is present the percentage of urethral infections is considerably greater in virgins or those whose vagina is less readily entered. The urethral glands, especially those of Skene, are very frequently involved and it is to infection of these structures that the prolongation of the disease and its resistance to treatment is usually due.

MALFORMATIONS

With one exception, a narrowing or stricture at the external meatus, congenital defects of the female urethra are much less common than in the male.

HYPOSPADIAS

Although comparatively rare in the female a number of cases of this condition have been reported. As in the male it is due to defective development of the anterior urethral wall, and the position of the external urethral meatus may be but slightly posterior to its normal location or the entire urethral wall may be absent; the condition then resembling a vesicovaginal fistula. In a patient recently seen at

the San Francisco Polyclinic the meatus was located 3.5 cm. behind its usual position; another hypospadias had resulted from an operation for a growth on the clitoris some years before coming under my observation. As in hypospadias in the male the meatus is frequently constricted and all of the symptoms accompanying urethral stricture may then be present. If the meatus opens into the vagina dribbling is a prominent symptom and the skin of the vulva and thighs is often excoriated. Cases have been reported of extensive defect of the anterior urethral wall with involvement of the sphincter and incontinence of urine.

A constricted meatus should be incised unless it yields readily to dilatation. If the defect in the urethral wall is extensive, reconstruction by plastic operation is advisable. This is accomplished by bringing together over a catheter two lateral flaps of the vaginal mucosa sufficiently long to replace that portion of the urethra which is missing.

EPISPADIAS

This malformation, which is due to defective development of the anterior urethral wall, is likewise rare in the female. When it exists the meatus may be located just below the clitoris, just above the clitoris, or the urethra may open behind the symphysis; a type of deformity usually associated with separation of the pubic bones, partial or complete extrophy of the bladder and defective sphincters. Partial incontinence of urine usually accompanies the second, and complete incontinence the latter type of epispadias; the adjacent skin is usually badly irritated.

In the second and third types of epispadias accompanied by partial or complete incontinence, restoration of the sphincters by plastic operation has been recommended, but exclusion of the bladder and urethra and transplantation of the ureters or nephrostomy is usually necessary.

DOUBLE URETHRA

Instances of complete and incomplete double urethra have been reported. Dannreuther's patient² had a complete double urethra with a caruncle at one of the meati. She complained of frequency of urination accompanied by a burning sensation, which disappeared, however, after removal of the caruncle. Absence of the urethra and atresia of the urethra have been reported, but are extremely rare.

STRICTURE OF THE FEMALE URETHRA

Strictures of the urethra are now beginning to receive the recognition they deserve as important etiologic factors in genitourinary tract disturbances in women and female children. The significance of urethral obstructions as factors in the production and prolongation of urethral infections seems obvious when we take into consideration the fact that the urethral orifice is often bathed in purulent secretion without producing urethritis in the normal urethra and the immediate improvement which follows dilatation in an urethritis associated with stricture. While comparatively uncommon in the deeper portion of the canal, strictures are often

found at or just inside the meatus. Obstructions at this point, whether congenital or acquired, are responsible for symptoms which improve rapidly under dilatation.

Strictures of the urethra of inflammatory origin usually occur at or just within the meatus, and the most common etiological factors are infection, usually gonorrheal, and ulceration. Strictures caused by trauma are found both at the meatus and in the lumen of the canal, and are usually the result of childbirth or operative procedures.

Frequent urination is the most common symptom of which these patients complain. It occurred in over 85 per cent of my patients. The next most frequent complaint is pain, which may be referred to the urethra, bladder, sacral, inguinal, or one or both lumbar regions. Burning or smarting, urgency, difficulty, constant desire to urinate, partial incontinence and dribbling are occasionally present. Residual urine is seldom found except in the presence of very tight strictures.

Although a stricture can be seen through the urethroscope, and is often palpable through the vagina, the diagnosis is best made by means of the olive-tipped bougie. A sound, or urethrotome, is much less reliable, as strictures of the female urethra usually yield readily to slight pressure, and consequently higher readings result from use of the latter instruments. Ordinarily no "hang" or "tug" should be detected on withdrawal of a F. 26 bougie through an unobstructed urethra.

It is not unusual to find the voided urine of patients with strictures chemically and microscopically negative, although as a rule it contains a few pus cells, owing to the urethritis and trigonitis with which it is commonly associated. Often symptoms ascribed to some other condition, such as ureteral stricture, are due to an urethral obstruction.

Although rapid dilatation is occasionally indicated, the majority of urethral strictures should be treated by means of gradual dilatation, absorption of the constricting exudate being best promoted by this procedure. Meatotomy, internal urethrotomy or external urethrotomy with resection of scar tissue are sometimes necessary. A straight dilator or sound of the same size as the stricture is first introduced. The sounds are increased two numbers at each treatment until an F. 30 passes without difficulty. It is advisable to avoid marked trauma or severe pain following treatment. After the withdrawal of the sound a few cc. of 10 per cent argyrol or 1 to 3 per cent silver nitrate solution are injected. At first treatments should be given twice a week, but the interval is gradually lengthened to once a month and then often may be discontinued. Preceding dilatation the use of a local anesthetic, such as a 10 per cent solution of cocaine on a cotton-tipped applicator is often advisable, especially in nervous women.

The majority of strictures are soft infiltrations in which the symptoms improve, as a rule, after two and disappear after five treatments, recurrence being very unusual if treatment is not too abruptly discontinued.

In the presence of many of the hard infiltrations

internal urethrotomy is often advisable, otherwise dilatation is necessary at frequent intervals for an indefinite period of time.

NEOPLASMS OF THE FEMALE URETHRA

The common benign tumors of the female urethra are the polyp, papilloma, and caruncle. The malignant tumors are the carcinoma and sarcoma. The former is uncommon and the latter very rare.

POLYPI AND PAPILOMATA

Polypi and papillomata are finger or fern-like projections from the surface of the mucosa. They are quite common and are usually located in the proximal third of the urethra just outside of the bladder sphincter, although sometimes found at the external meatus or in the middle or lower third of the canal. They are probably due to irritation from an accompanying or pre-existing infection, although frequently seen in an otherwise normal urinary tract. They may attain considerable size without causing symptoms. At other times they are responsible for frequent and painful urination, and if grasped by the internal sphincter may produce severe irritation and considerable bleeding. In one of my patients with three polypi located at the external meatus, bleeding occurred spontaneously on two occasions and also followed urethroscopy. In many patients with polypi at the bladder sphincter who have come under my observation, subjective symptoms were absent. As previously stated they are readily seen through a close-vision urethroscope using water dilatation, but are frequently overlooked if only the ordinary urethroscope is used, as they often lay flat against the urethral wall which they closely resemble.

H. R. Schmidt recently reported a very unusual case in which a tumor of the urethra the size of a plum caused the anterior wall of the vagina to protrude. It consisted of five large and four small polypi beneath which, in the urethral submucosa and muscularis, lay numerous cysts varying in size up to 2 millimeters. The patient had been treated for years with strong caustics. Cystic formations in the wall of the female urethra are very rare.

CARUNCLES

Caruncles are usually the product of chronic inflammation of the mucous membrane of the urethra. They cause more discomfort and pain than any other urethral growths. They are prone to recur even after most radical treatment and many consider them to be potentially malignant. They are responsible for frequent and painful urination and are usually extremely sensitive. Neurasthenia and loss of weight are not uncommon, although caruncles may exist without subjective symptoms.

Following the application of a 10 per cent solution of cocaine, they may be satisfactorily removed by fulguration or diathermy, although the clamp and cautery as suggested by Ferrier or the clamp and acid nitrate of mercury used by Crenshaw have given excellent results in their hands. If the base is not destroyed caruncles usually return.

One of my patients, 67 years of age, complained of painful and frequent urination of over twenty years' duration. She was extremely nervous, weak

and somewhat emaciated. Examination revealed three exquisitely sensitive urethral caruncles at the lower margin of the meatus. Her urinary symptoms disappeared and the others showed marked improvement following fulguration of these growths.

CARCINOMA OF THE FEMALE URETHRA

Although uncommon, primary carcinoma of the female urethra occurs occasionally; usually in patients over 40 years of age.

Chronic inflammation of the mucosa at the meatus or in the canal is believed to be an important etiologic factor. The most prominent symptoms of carcinoma are bleeding from the urethra and burning during urination. Difficulty in urination, pain and frequent urination are occasionally present. Examination reveals either a papillomatous growth at the external orifice or an irregular mass along the urethral wall which may or may not be ulcerated.

If treatment is begun early the prognosis is not hopeless. Partial or total excision of the urethra has been advised, but with a carcinoma so far advanced as to require such a radical operation as total excision the prognosis is so unfavorable that it is a question if such a procedure is justifiable. Diathermy, radium, or both are probably preferable.

Corbus and O'Connor⁵ have reported some good results from diathermy. I have seen two patients who had been treated with radium. One was alive one year, and the other five years after treatment without evidence of recurrence. The last patient, a widow 35 years of age, seen on March 7, 1921, complained of burning during urination and an aching sensation at the external urethral meatus of one week's duration. She had lost fifteen pounds during the preceding year. Examination revealed an ulcer involving the lower half of the external urethral meatus and an injected area extending backward along the floor of the urethra for about 2 cm. On March 8 she received 0.6 of neoarsphenamine and three days later 0.9. Examination on March 14 showed a slight increase in the size of the growth. As stated above she was in good health in March, 1926, five years after treatment with radium.

CALCULUS

Stones are rarely found in the female urethra because of the shortness of the canal, its lesser curvature and its greater distensibility. Although occasionally originating in the urethra, the majority have descended from the upper urinary tract and become lodged behind a stricture either at the external meatus or in the lumen of the canal or in a diverticulum.

The most common symptoms are frequent and painful urination, a constant desire to urinate, and a purulent discharge from the urethra.

If not seen on separation of the lips of the external meatus, calculi can be detected by inserting a metal instrument, such as an olive-tipped bougie or dilator into the urethra, by vaginal palpation or by a combination of these procedures. If it is impossible by means of a finger in the vagina to express

a calculus the stone may sometimes be grasped with forceps and removed following dilatation of the urethra. During instrumentation pressure with the vaginal finger behind the stone will steady it and prevent it from slipping back into the bladder. If too much force is required, however, an attempt should be made to push it back into the bladder where it may be crushed with a lithrotrite. If the calculus is lodged in a diverticulum it should be removed through a vaginal incision, the walls of the diverticulum being excised at the same time. Traumatism of the urethra, especially in the presence of an infected urine, is to be avoided.

A woman 50 years of age entered the Stanford Women's Clinic complaining of occasional attacks of painful urination. On vaginal palpation a hard mass was detected in the urethra just anterior to the bladder sphincter. Urethroscopy revealed a large calculus about 3 cm. from the external meatus. On attempting to remove the stone with urethral forceps it was broken into a number of fragments. Some bleeding followed this procedure. One week later the patient was free from symptoms and urethroscopy was negative. No calculi were found on radiography of the upper urinary tract.

REFERENCES CITED

1. Bugbee, H. G.: Frequency of Urination in Women, *Jour. A. M. A.*, March 3, 1917, p. 693.
2. Dannreuther: Complete Double Urethra in a Female, *Jour. A. M. A.*, September 12, 1923, p. 1016.
3. Stevens, William E.: Stricture of the Urethra in Women, *California State Journal of Medicine*, February, 1922; *Urology in Women*, *Jour. A. M. A.*, December 8, 1923.
4. Schmidt, H. R.: Entzündliche oder blastomatöse Tumorentwicklung in der weiblichen Harnrohe Ztscher. *F. Geburtsh. W. Gynak.*, Stuttg., 1924-25, LXXXVIII, 563.
5. Corbus and O'Connor: *Diathermy*, Bruce Publishing Company.

DISCUSSION

NATHAN G. HALE, M. D. (Capital National Bank Building, Sacramento)—A word of warning about overlooking the urethra is appropriate at this time, as Doctor Stevens ably points out to the urologists, and should also be seriously considered by the general practitioner. Urologists with experience are prone to examine this structure in a rather casual way, having their attention focused on abnormalities of the upper urinary tract.

The two-glass test is a valuable adjunct to the examination of the female urinary tract, and is not used as frequently as it should be. It is a variation of the usual technique in examining the female patient by most physicians.

Water irrigating cystourethroscope, for examining the urethra for pedunculated growths, is of utmost importance, as it brings into the field these papillary growths that the straight Kelly scope leaves flattened on the surface of the urethra and, therefore, often overlooked.

Cocain, 10 per cent strength, for a local anesthetic of the urethra, I am not familiar with, having been warned of its toxicity by experience of others. However, on a cotton-tip applicator that has been saturated with the solution there is probably less danger, but the use of a cocain solution in the urethra of any strength has always made me very apprehensive.

The paper is very timely, and it brings to my mind the old adage, not to put the cart before the horse, as we are very often prone to think of the kidneys first and the urethra last.

P. N. JACOBSON, M. D. (Medical Building, Oakland, California)—It will be seen from the study of Doctor

Stevens' 234 consecutive female patients complaining of various urinary disturbances that the lesions encountered in this series were: urethral stricture, 121, or 51.2 per cent, and urethritis, 68, or 29 per cent. Bearing in mind that the two lesions are commonly associated, we have then, of the total number of cases studied, approximately 80 per cent of these two conditions alone.

If Stevens had gone no further in his article than to emphasize the importance of urethral stricture in women as a disease entity his efforts would have been worth while; but he has considered in this contribution the various lesions of the female urethra in such a thorough manner that the article merits the serious consideration of the urologist and the general practitioner alike.

Urethral stricture is one of the most common as well as one of the simplest lesions to recognize of any of the disturbances occurring in this organ. I have seen instances in my own experience where patients have had symptoms of dysuria and frequency extending over a period of twenty years relieved by a single treatment. Further, I have seen patients subjected to bladder irrigations for a period of years, meanwhile the diagnosis being cystitis, with absolutely no relief of symptoms. Dilatation of the urethra as outlined in this article is the essential part of the treatment.

Trigonitis and urethrotigonitis is a condition observed in women that, while causing much suffering and misery, has apparently not received the attention it deserves. These inveterate sufferers may go on over a period of years complaining of undue frequency and urgency, never having had a urethroscopic examination, which offers the only means for positive determination of most of the lesions and diseases of the urethra.

An acute inflammation of the urethra is often accompanied with involvement of the contiguous bladder mucosa (cystourethritis, trigonitis, cervicourethritis), is a common condition, the etiology of which is obscure. Among the laity this condition is commonly known as "cold in the bladder." Exposure to cold, errors in diet, highly acid urine, alcoholic excesses may be the etiological factors in the production of this train of symptoms. In these cases the colon bacillus is most commonly found in the urine and in pus obtained from the urethra; and in many cases a history of intestinal disturbance preceding or coincident with the urethral and vesical symptoms is elicited. Staphylococci and streptococci occur in this form of urethritis. Hunner has called attention to the striking frequency of this urethral and vesical condition in association with tonsillitis, grippe, and pharyngeal infections.

The importance of microscopic examination in differentiating the type of urethral infections cannot be overestimated. No case of acute urethritis should be called gonorrheal until positive and authoritative demonstration of the gonococcus has been demonstrated in the exudate.

I have nothing to add to the method of obtaining these specimens for microscopic study other than the method outlined in this article. Doctor Stevens has given us an excellent description of the technique of the examination of the female urethra. The symptomology, diagnosis, and treatment of the various lesions described in this excellent paper deserves no further comment.

ANDERS PETERSON, M. D. (1136 West Sixth Street, Los Angeles)—I have read Doctor Stevens' paper with much interest and am left most strongly with the impression that I have not examined the female urethra with due care. Many women patients have undoubtedly been classified as neurasthenics following negative cystoscopic findings who were suffering from some lesion in the urethra. Particularly am I impressed with the large number of strictures reported, and I think that the reason for overlooking this condition is due to the fact that women rarely complain of urinary difficulty, but rather of painful urination.

In my own experience I recall many instances of difficulty in introducing the ordinary size cystoscope where it has been necessary to dilate the urethra with a sound of suitable size before cystoscopy could be carried out. In some of these patients no pathological conditions were

found in the bladder or kidneys, but the patients experienced almost immediate relief from their bladder irritation following such examination. Ordinarily I have not considered these cases as organic strictures, but rather thought them to be abnormally small urethras. Considering Stevens' findings and reports, these cases are undoubtedly organic contractions following either infections or trauma.

I feel both complimented and benefited in having this opportunity of reviewing this very complete essay.

HERBERT AUGUSTUS ROSENKRANZ, M.D. (W. P. Story Building, Los Angeles)—I have been much impressed with the system and completeness of Doctor Stevens' paper, which bears evidence of many revisions. One might compare it in this respect with the shorter stories of Balzac which, through their masterful technique, betray the many revisions and hard work that preceded the boiled-down, finished classic.

This paper is particularly timely, since we as urologists are too prone to concentrate on searching the kidneys and their immediate adnexae for abnormalities to the exclusion of the urethra in the female, although all of us learned early in our careers the folly of doing a male cystoscopy without having at hand also the complete urethroscopic armamentarium. The female urethra has been neglected urethroscopically and urethrometrically. Some practitioners for many years routinely dilated the female urethra for symptoms of irritable bladder. They did so empirically and not so infrequently got favorable results, little realizing that they were dilating an organic stricture.

Along this line it should be borne in mind that pain in the urethra, but with negative vulval, urethral and routine cystoscopic findings, is sometimes found on more thorough examination to be a referred pain caused by ureteral stricture. I appreciate the thoroughness of Stevens' paper all the more because some months ago I reviewed pretty thoroughly the available literature on the urethra in order to benefit an elderly lady who had had a very extensive growth removed from the vulva and urethra four years previously. After a number of urethroscopies and cystoscopies I finally relieved her by dilating a left ureteral stricture which had been the cause of a very distressing pain referred to the urethra.

Along with the use of the acorn-tipped bougie I have found palpation of the urethra with the finger to be of distinct value in the diagnosis of localized hard strictures and also of the fairly common chronic urethritis mentioned by Stevens, in which the whole urethral tube is uniformly and markedly thickened and increased in density.

I would like to call attention to a very much neglected but very effective treatment of chronic trigonitis and cystitis coli which conditions are occasionally complicated by a sensitive inflammatory condition of the urethra near the bladder neck. This condition is most frequently caused by a colon bacillus infection either ascending or descending. In my cases I have found it to be more frequently descending. It does not respond to bladder irrigation, although millions of bladder irrigations have been wasted upon these patients. The treatment was devised by Bierhoff while working in Knorrs' Clinic in Berlin, and is called "Knorrs' cauterization." A urethroscope is introduced into the bladder, thus emptying the bladder. A large cotton swab dipped in one-half of one per cent silver nitrate is introduced into the bladder, the urethroscope withdrawn, and the swab withdrawn after it. This procedure admits of a thorough application of the medicine to the diseased urethra as well as the bladder neck. The treatments should take place about every four days, increasing the strength of the silver nitrate one-half per cent each time up to tolerance, and according to result. The treatment may be somewhat painful, and I agree with Stevens, who remarks, "It is advisable to avoid severe pain following treatments." These patients should be given a hypodermic of some analgesic some minutes before the treatment. Neosilvol or argyrol should also be instilled into the bladder following the treatment on account of their soothing effect.

THE INSULIN TREATMENT OF DIABETIC COMA

By WILLIAM H. LEAKE *

(From the Medical Service of the Los Angeles General Hospital)

SINCE the introduction of insulin recoveries from uncomplicated diabetic coma are so frequent that it is not regarded with sufficient concern by some physicians who fail to realize that even with insulin, coma patients recover only as the result of long hours of hard work by the doctors and nurses.

This paper is based on fifty-three cases of diabetic coma treated with insulin at the Los Angeles General Hospital between January 1, 1923, and January 1, 1926. All but seven of the patients were in deep coma on admission or developed it after entering. The seven exceptions were so stuporous that I have classified them simply as coma patients. Joslin's¹ thirty-three patients treated with insulin with two deaths were largely those in impending coma.

The onset of coma may be sudden, but this is unusual except in severe diabetics receiving large amounts of insulin who are deprived of their supply. Patients who develop coma while taking insulin are extremely resistant to treatment. Nausea, vomiting, epigastric pain, restlessness, drowsiness, weakness, air hunger, and headache are the usual danger signals indicating approaching coma. Abdominal pain, nausea and vomiting are frequently met with in children and at times are mistaken for symptoms of an acute surgical condition, as fever and leukocytosis may be present. Wild delirium is occasionally the first symptom of impending coma. Air hunger, hyperpnea or Kussmaul respiration is practically always present in diabetic coma as a very characteristic symptom. A most important sign in the differential diagnosis of diabetic coma is the soft eyeball, first described by Krause in 1904 and more fully by Riesman² in 1916. Krause observed it in twenty-two patients with diabetic coma, but failed to find it in coma from other causes. I have observed it repeatedly in diabetic coma; in several instances the intraocular tension could not be obtained with the tonometer. The cause of this phenomenon is not known.

As the onset of coma is often insidious every diabetic should be warned to communicate immediately with his doctor if any unusual symptoms appear.

Treatment—In October, 1923, the following rules for the treatment of diabetic coma were prepared by Dr. Phoebus Berman, medical director of the Los Angeles General Hospital, and, with certain minor modifications, are still in use:

1. Catheterize the patient and examine the urine immediately upon admission.

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2. Warmth is essential; keep the patient warm with hot blankets and hot water bottles.

3. Empty the lower bowel with a warm soapsuds enema; repeat if necessary; avoid cathartics.

4. Force fluids up to 4000 cc. during each twenty-four hours. If the patient is unable to swallow, administer 1000 cc. normal saline by hyperdermoclysis every six hours (at the present time we often give 5 per cent glucose solution with insulin by this route). Proctoclysis of normal saline or of glucose and soda may be given freely.

5. Administer one unit of insulin per pound of body weight; one-half of the amount is given intravenously, one-half subcutaneously. In patients who are not in deep coma the report of the initial blood chemistry should be obtained before the second half of the insulin is given. If the second blood examination (four hours after the initial dose of insulin) shows that the blood sugar has not changed or has increased, another subcutaneous injection of insulin should be given (one-half the initial dose). The blood sugar and plasma carbon dioxide combining power are determined every four hours. The degree of acidosis, the patient's general condition and the duration of the coma should be taken into consideration in giving additional insulin. Ordinarily the amount of insulin administered up to this time ($1\frac{1}{2}$ units per pound of body weight) is sufficient for the first twenty-four hours.

6. Administer approximately one gram of glucose per kilogram of body weight during the first twenty-four hours. If possible, give by mouth in the form of orange juice, which contains 10 per cent carbohydrate. If the patient is unable to swallow, a proctoclysis of 5 per cent glucose should be given (we are now using 5 per cent glucose solution containing insulin by hypodermoclysis). When a large amount of insulin is used it is thought safer to give more glucose than the amount suggested above, but it should be remembered that in ordinary cases of diabetic coma large quantities of insulin are tolerated without marked reduction in the blood sugar.

7. If the patient remains in coma at the end of twenty-four hours following the first administration of insulin, and the blood sugar is still high, the original dose of insulin may be repeated, dividing it into two or three injections during the next twenty-four hours. The blood sugar should be determined every four hours and symptoms of hypoglycemia should be looked for at this time.

8. As children appear to be more susceptible to insulin, give smaller doses. A relatively small amount occasionally produces a marked reduction in the blood sugar.

9. Many coma patients will continue to be sleepy and drowsy for several days after the acidosis has disappeared and after the blood sugar has been reduced. Insulin should be given to these patients with caution as a hypoglycemic state may be brought about easily.

10. Nourishment to the comatose patient is supplied in the form of orange juice. As soon as the individual is able to take food by mouth a balanced diet of approximately 1000 calories per twenty-four hours is furnished. The diet should be of small bulk, consisting mainly of milk, cream, cereal, butter, and orange juice.

Some of the first coma patients in this series were given large quantities of sodium bicarbonate by mouth and by rectum, but now we are content with the administration of not more than 15 to 25 gm. of sodium bicarbonate during the first twenty-four hours. This is the dosage suggested by Starr and Fitz,³ who have shown that in certain patients with diabetic coma the acidosis may be due to organic acids other than the ketone group which do not respond to insulin but disappear under alkali therapy.

During the past year and a half at the Los Angeles General Hospital insulin has been administered by the subcutaneous route, except in the most severe cases where the initial dose was given intravenously.

Recent literature indicates that the majority of investigators are in favor of fairly large doses of insulin. Joslin,⁴ in 1923, advised against more than ten units of insulin as an initial dose in coma cases, but more recently⁵ he advocates larger amounts. He states that, "We never intend that a patient at the New England Deaconess Hospital shall come up to within two hours of death from coma without having received at least 150 units of insulin in the preceding hour." I have given in several instances 100 units as the initial dose. In order to prevent any untoward effects from such large amounts it is the custom at the Los Angeles General Hospital to use approximately 1 gram of glucose to buffer each unit of insulin. Campbell and Macleod⁶ are of the opinion that carbohydrate thus administered is more efficient as an antiketogenic agent than glucose derived from glycogen in the tissues and from the protein breakdown. The glucose is given for this purpose as well as to prevent possible hypoglycemia.

Of my 53 patients 29 were males, 24 females. The youngest patient was $2\frac{1}{2}$ years, the oldest 67 years. Table I shows the age incidence by decades. Twenty-eight patients were in deep coma on admission and 18 developed coma after entrance to the hospital. There were seven "borderline" cases, so called because these patients were in an advanced state of acidosis and were extremely drowsy. The patients manifesting signs of severe acidosis, moderate air hunger and drowsiness, but who could answer questions are not included in this discussion.

Thirty-seven (69.8 per cent) of the 53 patients died, 16 (30.2 per cent) recovered. Seven patients who entered the hospital in deep coma regained consciousness but died of other complications. The cause of death in the majority appeared to be sudden heart failure. The seven patients termed "borderline" recovered. Eight patients died within twelve hours after admission. Twenty of the 37 patients who died had grave complications, which were discovered at the time of examination or at necropsy (Table II).

The highest blood sugar noted was 625 mg. per 100 cc. of blood, the lowest 181 mg. Two patients had extremely low plasma carbon dioxide combining power—9.9 volumes per cent; one recovered.

One patient was admitted on three separate occasions in coma, recovery ensuing each time; another was admitted twice in coma, recovering each time, and one, a child of $2\frac{1}{2}$ years, died a few hours after his second admission for diabetic coma.

Of the eleven patients who had been under insulin treatment prior to the onset of coma only five recovered, thus confirming the statement made above that severe diabetics who are deprived of their insulin may go into coma very rapidly and that they are singularly resistant to subsequent insulin therapy. The smallest quantity of insulin required to restore a patient to consciousness was 15 units in a child $2\frac{1}{2}$ years of age. Many of the patients who received large doses of insulin remained stuporous for several days, although the acidosis disappeared within a few hours. In the first few patients insulin was administered with undue caution. It is now a well-known fact that so long as the insulin is buffered with sufficient carbohydrate unlimited quantities may be given. I have found it unnecessary to administer

more than 200 units to the average coma patient during the first twenty-four hours, but I would not hesitate to give five times that amount if indicated.

In many diabetics receiving large doses of insulin the blood sugar tends to remain at a high level although the urine is sugar free. Attempts to lower the blood sugar by increasing the dose of insulin may be followed by a moderate reaction, although the blood sugar does not fall below 100 mg. per 100 cc. of blood. Campbell and Macleod⁶ suggest that these reactions may be explained on the basis of protein sensitization, but this is not certain. They suggest also that the speed of change of the blood sugar level may be in some way the responsible factor. Major and Davis⁷ have noted these reactions in patients with high blood sugar levels. Guthrie⁸ in a recent communication states that these reactions may be overcome and a lower level maintained by re-education of the patient or "cell training." Many of my patients who have been receiving insulin for some time show this high blood sugar level with no glycosuria; all efforts to reduce the blood sugar by increasing the insulin have met with failure because of the reactions which developed.

Lack of space will not permit detailed case reports or graphic charts. Tables III, IV, V, VI, and VII show the laboratory data of five patients of this series. Patient No. 192-960 was discharged on a diet of P. 50, C. 70 and F. 205, with *no insulin*, the only patient of those recovering in whom it was found possible to discontinue insulin. Patient No. 201-942, discharged February 2, 1923, receiving 30 units of insulin daily and with a blood sugar of 181 mg. is at the present time receiving 92 units of insulin a day, the blood sugar ranges between 222 mg. and 285 mg. and the urine is sugar free. This patient is unable to tolerate 95 units of insulin without showing a reaction.

SUMMARY AND CONCLUSIONS

1. Fifty-three patients with diabetic coma are reported. The high mortality of this series is explained partially by the large number of grave complications, the long duration of the coma in many, and the failure of several patients to receive treatment for diabetes before coma developed.

2. The symptoms of approaching diabetic coma are often misleading. Diabetics should be warned to communicate immediately with their physician upon the appearance of any unexplained symptom. Abdominal pain, nausea, vomiting, fever and leukocytosis, especially in children, may lead to the diagnosis of an acute abdominal condition.

3. Decreased intraocular tension is a very important sign in the diagnosis of diabetic coma. It is practically always present.

4. In addition to the liberal use of insulin, buffered with carbohydrate, the treatment of diabetic coma consists mainly in forcing fluids, warmth, elimination, and stimulation with caffeine sodium benzoate and digitalis. Not more than 25 gm. of sodium bicarbonate should be administered daily.

5. Diabetics develop coma rapidly when deprived of insulin. Coma in these individuals is apparently

more resistant to insulin therapy than in patients who have not received insulin previously.

6. Insulin is not infallible. Coma patients recover only as the result of strenuous hours of hard work by the doctors and nurses in attendance.

7. Insulin is an extremely potent drug. In the hands of those familiar with its action it often saves lives, but if used carelessly the results may prove disastrous.

TABLE I

Age incidence by decades: 1st decade 4; 2nd decade 6; 3rd decade 9; 4th decade 11; 5th decade 11; 6th decade 7; 7th decade 5.

TABLE II

Complications in the fatal cases: bronchopneumonia 3; carbuncle 2; pulmonary edema 2; septicemia 1; gangrene (amputation) 1; ruptured pyosalpinx—general peritonitis 1; ethmoidal sinusitis with brain involvement 1; cardiac decompensation 1; multiple abscesses of arms (probable septicemia) 1; intestinal obstruction 1; auricular fibrillation 1; miliary abscesses of left kidney 1; bronchopneumonia—empyema 1; bilateral hydronephrosis and hydro-ureter 1; gangrene and pneumonia 1; and pulmonary tuberculosis 1.

TABLE III

| Date | No. 192-270. Age, 2½ years | Urine | Blood | Insulin |
|------------|----------------------------|---------|-----------|---------|
| July, 1923 | Days in Coma | Sugar % | Sugar Mg. | Units |
| 3 | 3 | 1 | 625 | 15 |
| 4 | | 0 | 377 | 7 |
| 5 | | 0 | 400 | 7 |
| 6 | | 0 | 333 | 9 |
| 7 | | 0 | 333 | 9 |
| 8 | | 1 | | 14 |
| 9 | | 0.5 | 333 | 15 |
| 12 | | 0 | | 16 |
| 15 | | 0 | 250 | 16 |
| 19 | | 0 | 200 | 16 |
| 23 | | 0 | 166 | 16 |

TABLE IV

| Date | Acetone | Urine | Blood | Blood | Insulin |
|---|---------|---------|------------------------|-----------|---------|
| May, 1923 | | Sugar % | CO ₂ Vol. % | Sugar Mg. | Units |
| 28 | 0 | 2.5 | | 400 | 0 |
| Patient in hospital on a diet preparatory to perineorrhaphy | | | | | |
| Nov., 1923 | | | | | |
| 10 | 1+ | trace | 61 | 200 | 35 |
| 11, day after operation | | | | | |
| | 4+ | present | 57 | | 60 |
| 12 | 1+ | 0.5 | — | | 85 |
| 13 | 0 | 0 | 86 | 117 | 125 |
| 14 | | 0 | 84 | 142 | 35 |

This patient died of pneumonia. She became comatose shortly after operation, but responded readily to insulin. She received no insulin prior to the perineorrhaphy. Coma developed again a few hours before death, but there was no evidence of acidosis at this time.

TABLE V

| No. 192-384. Age, 22 years | | | | |
|----------------------------|---|--|-----------|---------|
| Date | Urine | | Blood | Insulin |
| July, 1923 | Sugar % | | Sugar Mg. | Units |
| 5 | Semi-comatose on admission. Patient went completely into coma twelve hours later. | | | |
| 6 | 3.3 | | 363 | 150 |
| 7 | | | 347 | 80 |
| 8 | | | 333 | 80 |
| 9 | | | 285 | 80 |
| 14 | | | 400 | 80 |
| 17 | | | 142 | 80 |

Patient discharged July 26, 1923. Diet P. 45, C. 65, F. 152. Insulin, 80 units daily.

TABLE VI

| No. 192-960. Age, 33 years | | | | | |
|----------------------------|--------------|---------|---------------|-------------|---------------|
| Date | Time in Coma | Acetone | Urine Sugar % | Blood Sugar | Insulin Units |
| July, 1923 | | | | | |
| 18 | 6 hrs. | 2+ | 2.5 | 400 | 80 |
| 19 | | 1+ | 2.5 | 400 | 80 |
| 20 | | 0 | 2.0 | 500 | 140 |
| 23 | | | | | |
| 30 | | 0 | 1.0 | 333 | 50 |
| August 6 | | 0 | 0 | 182 | 10 |
| 23 | | 0 | 0 | 118 | 0 |

Discharged August 23, 1923. No insulin. Diet P. 50, C. 70, F. 205. This is the only patient in the series in whom insulin was discontinued.

TABLE VII

| No. 201-942. Age, 22 years | | | | | |
|----------------------------|---------|---------------|------------------------------|-------------|---------------|
| Date | Acetone | Urine Sugar % | Blood CO ₂ Vol. % | Blood Sugar | Insulin Units |
| January, 1924 | | | | | |
| 11 | 3+ | 3.3 | 10 | 400 | 150 |
| 12 | 3+ | 0 | 29.6 | 400 | 85 |
| 14 | | 0.95 | 39.5 | 307 | 60 |
| 15 | | 0.8 | 40.4 | 285 | 30 |
| 16 | | 1.3 | 30.9 | 250 | 30 |
| 17 | | 0.6 | 42.4 | 285 | 30 |
| 18 | | 0.5 | 40.4 | 285 | 30 |
| 19 | | 0.6 | 40.4 | 285 | 36 |
| 21 | | 0.4 | 48.1 | 285 | 36 |
| 22 | | 0.2 | 50.0 | 222 | 36 |
| 23 | 1+ | 0.4 | 50.0 | 222 | 45 |
| 24 | 0 | 0.08 | 50.0 | 200 | 45 |
| 28 | 0 | 0.09 | — | 181 | 36 |
| Feb. 1 | 0 | 0.08 | — | 181 | 30 |

Discharged February 2, 1923. This patient has been under observation in the diabetic clinic during the past three years. He remains sugar free with a blood sugar of 250 mg. He receives 92 units of insulin daily. Any attempt to lower the blood sugar by increasing the insulin produces severe reactions.

REFERENCES CITED

1. Joslin, E. P., et al.: Med. Clinics North America, 8:1873, 1925.
2. Riesman, David: Journal American Medical Association, 66:85, 1916.
3. Starr, Paul H., and Fitz, R.: Archives Internal Medicine, 33:97, 1924.
4. Joslin, E. P.: Journal American Medical Association, 80:1581, 1923.
5. Joslin, E. P.; Root, H. F., and White, Priscilla: Medical Clinics North America, 8:1873, 1925.
6. Campbell, W. R., and Macleod, J. J. R.: Medicine, 3:195, 1924.
7. Major, R. H., and Davis, R. C.: Journal American Medical Association, 84:1798, 1925.
8. Guthrie, J. B.: Medical Clinics North America, 9:943, 1926.

Large scale production, far-flung advertising, and the widespread distribution of goods and ideas have drained something of the color and flavor from American life. Men no longer react individually to conditions as they did in the isolation of the farm or the mine but respond to them under full cognizance of what their fellows are believing and feeling. They think alike, act alike, desire alike. It is a truism that deviation from the usual is nowhere more frowned down upon than in democratic America. Conformity is the price of respectability, and eccentricity is the deadly sin. As nowhere else in the world fashions and fads tyrannize in America.—*Saturday Review of Literature*.

Under the new Medical Practice Act of New York, podiatrists are forbidden to call themselves doctors, even though they follow this designation with the qualifying term of their craft. It is also prohibited to any but licensed physicians to use the expressions "foot specialist," "surgeon," "pedic surgeon," "orthopedic surgeon," or "orthopedic specialist."

PERFORATED ULCERS OF THE DUODENUM

TREATMENT BY HORSLEY OR MAYO PYLOROPLASTY

By EDMUND BUTLER* AND EVERETT CARLSEN

Simple closure is the rational procedure in perforations of acute duodenal ulcers. Such ulcers have existed only a very short time, and the patient often does not give a history of distress previous to perforation. Possibly about 20 per cent of perforated duodenal ulcers come under this classification.

Obstruction seldom follows closure of a perforated duodenal ulcer, therefore it is unnecessary to do a gastroenterostomy because of the fear of this complication.

The surgeon that occasionally encounters a perforated ulcer should be satisfied to do a simple closure.

Perforation of a chronic duodenal ulcer, if seen early, should be treated the same as perforating ulcers. If the induration is great and the patient's condition good a gastroenterostomy is advisable. If there is slight induration and the gastric wall in the region of the pylorus and the antrum is not too much indurated or thickened, then a pyloroplasty is indicated.

DISCUSSION by R. W. Wilcox, Long Beach; Clinton D. Collins, Fresno; John Homer Woolsey, San Francisco.

PATIENTS suffering from perforated duodenal ulcers present themselves for treatment in three stages. First the stage of contamination, secondly the stage of peritoneal reaction, and thirdly the stage of progressive peritonitis. During the stage of contamination continuous severe pain in the epigastrium and a board-like rigidity make a diagnosis of perforated ulcer most likely. During the stage of reaction the pain becomes less severe and the rigidity, although present, is less marked, the patient believes himself to be improving, thus the correct diagnosis may not be suspected and the decision to wait a few hours is frequently made. During the stage of progressive peritonitis it is difficult without a most carefully taken history to make a correct diagnosis. The diagnoses of cholecystitis, pancreatitis, diverticulitis, appendicitis, pyelitis and, in the female, pelvic inflammation must be ruled out.

The operative procedures depend on the stage in which the patient first comes for treatment. In the stage of contamination our procedure should be the same as though we were dealing with a perforating ulcer. The presence of a perforation within the first three or four hours should not deter the surgeon from doing a pyloroplasty or a gastroenterostomy. In the stage of reaction the operative procedure must be limited and simple closures and possibly pyloroplasty may be considered, most assuredly not a gastroenterostomy. During the stage of progressive peritonitis simple closure of the perforation is all that reasonably should be done, with pelvic drainage added in the latter stages. Drainage is not used in the stage of contamination or reaction, or in the early stages of peritonitis. Flushing of the peritoneal space should not be attempted.

The advice of some of our leading surgeons is confusing to one not sufficiently acquainted with this type of pathology to have developed considerable individual judgment. Guthrie summarized answers to questionnaires on the subject of perforation of duo-

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denal ulcers of 150 surgeons. Gastroenterostomy was done routinely by twenty-two, by sixty-four never, and in sixty-two a shifting percentage depending upon the condition of the patient, size and induration of the ulcer and the degree of stenosis. Deaver performs gastroenterostomy in every case. Richter is of the opinion that the perforation if properly closed would cause obstruction and therefore require gastroenterostomy. Gibson reports results not so good after gastroenterostomy as without it, and actual obstruction rarely occurs. Pool holds that routine gastroenterostomy is not advocated because with the average surgeon it increases the immediate risk. The mortality rate is little affected by gastroenterostomy, according to Hunt. K. Patterson Brown believes that gastroenterostomy gives a larger percentage of cures than does simple closure. Mills of England advocates routine gastroenterostomy. Wilensky is of the opinion that the most rational procedure in the presence of an acute perforation is to simply close the perforation. Stillman, my former chief, advocates simple closure and later a secondary gastroenterostomy may be necessary in a very low percentage of cases. Weeks, former chief of the San Francisco Hospital Service, is an advocate of simple closure, except when the ulcer is very near the pylorus and the closure is likely to produce obstruction, then a gastroenterostomy should be done.

Since December, 1919, sixty-eight patients suffering from perforated gastric or perforated duodenal ulcers have been operated upon in the Emergency Hospital Service. Of this series twenty-one have been simply closed. In thirty-seven gastroenterostomy was performed. In a recent series of ten perforated duodenal ulcers, Horsley-Mayo pyloroplasties have been performed. In the series of gastroenterostomies three patients were lost. In the series of simple closures seven patients were lost. Most of the patients that were lost following simple closure came in late and progressive peritonitis was well advanced.

At present we believe that pyloroplasty has a limited application, but we are not thoroughly convinced that the after results are any better following pyloroplasty than those that follow simple closure. In a subsequent paper we hope to be able to give data that will be more conclusive. Two patients of this series of pyloroplasties died, one had a sickle cell anemia, which has been previously reported by Gordon Hein of the San Francisco Hospital; the other developed a bronchial pneumonia the fourth day and died on the seventh day. No evidences of complications from the perforated ulcer were manifested.

The technique of the pyloroplasty is precisely that described by Horsley and by Mayo. Remember the structures are indurated and the procedure is more difficult, as the sutures will cut if too much tension is applied. The stomach must be pulled or shoved over to the duodenum as the temporary inflammatory induration fixes the duodenum. Incision must not extend the full two inches on the gastric side, as the opening of three or three and one-half inches in length would be most difficult to close transversely in the presence of the induration.

DISCUSSION

R. W. WILCOX, M.D. (114 East Seventh Street, Long Beach, California)—The most impressive factor of the treatise by Doctor Butler and Doctor Carlsen is the fact that perforations of the duodenum cannot be considered as a single entity with a routine operative repair for all cases. The individual, the age, the physical condition, the chronicity of the ulcer, and the time elapsing between the perforation and the time of repair, are factors that markedly alter the pathological picture.

The pathology found at operation determines the procedure that should be followed so as to give the patient first and above all else the best possible chance for recovery, and, second, the best possible functional result. The functional result may not be satisfactory; however, it is possible to correct this by further surgical procedure providing the patient is alive. The surgical judgment governed by the desire of the surgeon for the recovery of the patient, based on thorough pathological knowledge, will determine in each case the surgical procedure.

Artistic operations well performed are of no value if the patient does not recover.

Butler and Carlsen's classification of the stages of peritoneal involvement as a determining factor in the extent of surgical procedure is very good and gives the patient a maximum chance for recovery. The classification makes it axiomatic that the extent of surgical procedure decreases as the peritoneal invasion increases.

Simple closure of a perforation in a certain number of cases would give a lower mortality rate than a series of cases in equal number where more extensive operations were performed.

Secondary operations in a small percentage of cases following simple closure would be necessary, resulting, I believe, in a more satisfactory functional result than the result following immediate pyloroplasty or gastroenterostomy where the extent of pathology markedly handicaps the surgeon.

I have very much enjoyed the privilege of commenting on this excellent paper.

CLINTON D. COLLINS, M.D. (Mattei Building, Fresno, California)—The subject of treatment of perforation of gastric and duodenal ulcers has been well covered in this paper. The authors have given us a good working classification.

Most surgeons will agree, I believe, that in those patients who have reached the stage of progressive peritonitis, no more than a simple closure of the ulcer with or without drainage should be done. Even in the advanced cases, however, it may be necessary to excise the base of the ulcer before a satisfactory closure can be made. This is particularly true of indurated ulcers of the stomach.

In the earlier stages there is ground for difference of opinion. A factor which will often influence the extent of the operation and one which the authors have not emphasized is that of shock, which usually follows perforation of the stomach or bowel.

We often see patients in the earlier stages following perforation who are profoundly shocked. Unnecessary surgery should not be attempted under such circumstances. In these cases we are not dealing with ulcers of the stomach or duodenum per se, but with complications arising as the result of the perforation of the ulcer. Our efforts under these conditions should be directed, not so much toward curing the ulcer, but to carrying our patients safely through the immediate emergency. Experience has taught us that this end can be best accomplished by simple closure of the perforation, leaving more drastic curative measures to some future and more suitable time.

JOHN HOMER WOOLSEY, M.D. (490 Post Street, San Francisco)—The three stages of perforating duodenal and gastric ulcers are well chosen and defined. Agreement is also unanimously given to the authors' general outlined plan of treatment for each stage with the exception of the use of a pyloroplasty.

The advisability of a pyloroplasty, which obviously will be performed only in the first stage or period of contamination, is contrary to the experience at the University of California clinic. The first qualification for a

pyloroplasty is a freely movable, or, secondly, a mobilized duodenum. This prerequisite is as a rule not present in a chronic perforating duodenal ulcer, rarely present in an acute perforating duodenal ulcer, and a pyloroplasty never would be employed for a perforating gastric ulcer of the lesser curvature of the stomach. Mobilization by a lateral linear incision of the posterior peritoneum would be unwise in the presence of possible infection. Pyloroplasties performed where the duodenum is not freely mobile or where, as Butler and Carlsen say, "the stomach must be pulled or shoved over to the duodenum" do not give a good functional result and the majority have to come to further surgery.

It is recommended therefore that in the stage of contamination, simple closure of the perforating duodenal and gastric (pyloric antral) ulcer, with gastrojejunostomy only where obstruction is likely to ensue, and simple closure of the gastric ulcer of the lesser curvature with excision at times if possible but always accompanied by gastrojejunostomy, be performed.

CONTROL OF URINARY HEMORRHAGE

By PAUL A. FERRIER *

DISCUSSION by James R. Dillon, San Francisco; Franklin Farman, Los Angeles.

WHILE the control of urinary hemorrhage is often simple, there are instances which tax the resources of the most skillful surgeon. It is proposed to consider these resources.

Successful treatment of hemorrhage includes the removal of the underlying pathological conditions. To recall the etiology, I have tabulated from MacKenzie, Kretchmer and Chute 1679 cases of hematuria, with their causes, in order of frequency.

| CAUSES OF HEMATURIA | Cases | Per Cent |
|----------------------------|-------|----------|
| KIDNEY | 1679 | |
| Pyelitis or pyelonephritis | 712 | 42.4 |
| Tuberculosis | 217 | 12.3 |
| Stone | 180 | 10.7 |
| Nephritis | 145 | 8.6 |
| Malignancy | 56 | 3.3 |
| Hydronephrosis | 54 | 3.2 |
| Trauma | 20 | 1.1 |
| Polycystic kidney | 12 | .71 |
| Congenital anomaly | 11 | .66 |
| Pyonephrosis | 11 | .66 |
| Syphilis | 4 | .23 |
| Infarct | 2 | .11 |
| Movable kidney | 2 | .11 |
| Echinococcus | 1 | .05 |
| BLADDER | 527 | 31.3 |
| Tumor | 358 | 21.3 |
| Stone | 72 | 4.2 |
| Chronic cystitis (simple) | 49 | 2.8 |
| Tuberculosis | 14 | .73 |
| Hunner ulcer | 9 | .53 |
| Diverticulum | 8 | .47 |
| Trauma | 7 | .41 |
| Polypi | 3 | .17 |
| Cord bladder | 2 | .11 |
| Fistula | 2 | .11 |
| Cystitis cystica | 1 | .05 |
| Angioma | 1 | .05 |
| Ruptured artery | 1 | .05 |
| PROSTATE | 225 | 13.4 |
| Hypertrophy | 135 | 7.7 |
| Cancer | 61 | 3.6 |
| Inflammation | 13 | .77 |
| Tuberculosis | 10 | .58 |
| Stone | 4 | .23 |
| Foreign body | 2 | .11 |

* Paul A. Ferrier (Citizens' Savings Bank Building, Pasadena, California). M. D. University Pennsylvania, 1911. Graduate study: Mayo Clinic, 1915-18. Practice limited to Urology. Hospital connections: Urologist to Pasadena Hospital.

| | Cases | Per Cent |
|------------|-------|----------|
| URETER | 151 | 8.8 |
| Stone | 142 | 8.4 |
| Stricture | 6 | .35 |
| Atony | 2 | .11 |
| Cancer | 1 | .05 |
| URETHRA | 64 | 3.8 |
| Urethritis | 26 | 1.5 |
| Trauma | 13 | .77 |
| Stricture | 12 | .71 |
| Caruncle | 10 | .58 |
| Prolapse | 2 | .11 |
| Polypi | 1 | .05 |

This list while not complete is representative. Essential renal hematuria of varied etiology is not tabulated, but is an important problem because of its differential diagnosis by exclusion, and its demand for control of bleeding.

In every hematuria diagnosis comes first. The initial bleeding is never fatal. Every day patients lost because the easy-going physician tides over a hemorrhage from tumor or tuberculosis while the opportunity for cure slips. Caspar states that in only three of 142 cases of bladder tumor seen soon after the first bleeding was the tumor large. By all means, diagnosis comes first. But help is often needed preliminary to radical treatment, and it is not always possible to remove the pathological lesions. Therefore, palliative hemostasis is important.

General as well as local causes must be considered. Clotting power may be at fault. While the mechanism of clotting is not fully understood, it is recognized that the clot is built upon fibrin, which exists in the blood as fibrinogen. Fibrinogen is coagulated by a protein substance thrombin, capable of being isolated and combining with 215 times its weight of fibrinogen. Thrombin exists in the blood as prothrombin, which is activated by tissue and blood cell juices called thrombokinase in the presence of a sufficient concentration of a soluble salt of calcium. The blood is kept from clotting in the veins by an antagonist to the prothrombin.

Four deficiencies may exist: that of calcium; of prothrombin; of platelets; of tissue juices, so called thrombokinase. The calcium clotting time may be tested and if calcium is lacking as, for example, in chronic jaundice, the administration of 10 cc. of 10 per cent calcium chloride intravenously on three successive days restores clotting. The common practice of giving calcium lactate by mouth is ineffective because of small absorption. In hemophilia prothrombin is lacking. In purpura platelets are low. These may only be supplied by blood or tissue juice from another person.

Clotting may be raised above normal by increasing the thrombokinase locally or generally. Locally by squeezing out the patient's own tissue juices. For example, Freyer advises massaging the prostatic capsule after enucleation; by heat; by transplanting muscle tissue, or by application of cephalin, or thromboplastin. For general action these may be injected subcutaneously. They have largely superseded horse serum on account of the danger of anaphylaxis and serum sickness.

Neuhoff and Hirshfeld found that intramuscular injection of sodium citrate greatly hastened clotting in normal or abnormal blood, except in platelet deficiency. The effect lasts two to three hours. Fifteen

cc. of 30 per cent sterile sodium citrate solution is injected into the muscle of each buttock preceded by novocain. No harm was noted in two hundred cases, even in nephritis. I have found this useful in oozing hemorrhages.

Mills, of the University of Cincinnati, has purified a tissue extract, which he calls "tissue fibrinogen." It is a protein united with cephalin. Administered subcutaneously, or with ice water on an empty stomach, it diminishes the clotting time one-half in fifteen minutes, the effect lasting several hours. He claims an effect in all types of bleeding except (1) severe jaundice, (2) rapidly progressive secondary anemia, (3) purpura, (4) hemophilia, after the bleeding has continued two days. It has the disadvantage of being unstable.

Finally, for all serious hemorrhages the sheet anchor is blood transfusion, both to replace the loss, and to promote clotting. Whole blood versus citrated blood has been much discussed. To replace massive loss that is best which is quickest. The citrate method is easier, can be done by one person, and the blood can be transported. But it is generally agreed that fewer undesirable reactions follow whole blood; and with proper assistance it is the method of choice. The patient should be previously grouped with available donors. But it is a comfort to know that Birnes in recently reporting 1000 transfusions states that in 426 cases in which a Group IV donor was used for a patient in another group, the percentage of reactions was no higher than in a series in which donor and recipient were in the same group.

How to stop essential hematuria has long been a problem. The Johns Hopkins series reported by Levy indicates that nephrotomy is not justifiable, as the results are better with the injection of 5 per cent silver nitrate into the pelvis of the kidney. Connor at the Mayo Clinic has recently shown in twenty-two cases of essential hematuria a definite deficiency in blood platelets. Other cases were proved to be associated with purpura hemorrhagica. In one such case under my observation, long continued hematurias with general purpura ceased with the intravenous injection of mercurochrome.

In bleeding from pyelitis injection of silver nitrate solution up to 5 per cent is effective, if combined with elimination of focal infection and correction of faulty drainage.

In bleeding from the lower urinary tract, when the pathology cannot be removed, rest, general and local by indwelling catheter, continuous two-way irrigation with 1:15000 silver nitrate solution, fulguration or diathermy are available. In spite of its limitations in the cure of malignancy of the bladder and prostate, radium for the arrest of hemorrhage is invaluable. Deep x-ray therapy is also useful.

No attempt is being made to cover individual urologic operations, but the general principles of exposure, careful dissection under the eye, looking out for aberrant vessels, painstaking ligation, proper pedicle development, double clamping, individual ligation, are vital.

One operation will be mentioned because men have viewed with complacency a degree of hemorrhage which would not be tolerated in any

other operation: that is, prostatectomy. Thompson Walker states in 1920 that in the entire series of prostatectomies at Saint Peters Hospital, only two deaths were attributed to hemorrhage. But the following causes were invoked: shock, 10; syncope, 3; exhaustion, 7; cardiac, 9. He says, moreover, that one in every ten bleed seriously. Folsom collected 3588 prostatectomies with only four deaths from hemorrhage. He considers hemorrhage negligible. Hemorrhage is not pleasant to admit. He does not list the deaths from shock, exhaustion, syncope, cardiac failure, hypostatic pneumonia or the prolonged convalescence and permanent loss of vitality due to severe bleeding. But the use of wide-open exposure, ligation of bleeders in the prostatic capsule advocated by Thompson Walker, and the use of the Pilcher bag, Hunt has indeed made hemorrhage negligible in suprapubic prostatectomy.

Finally, the individual reaction of every bleeding patient to hemorrhage should be thoughtfully considered. One may bear with impunity what is disastrous to another. The blood pressure and heart bear careful watching. Stimulating a heart suffering for want of blood is unintelligent treatment. Replacing blood by salt solution is temporary respite. Transfusion, if needed, should be resorted to early, not merely to spare a hemorrhage death, but to avoid a prolonged dangerous convalescence with perhaps permanent deterioration.

DISCUSSION

JAMES R. DILLON, M. D. (490 Post Street, San Francisco)—Doctor Ferrier has ably presented the subject of hematuria, which should be regarded by the general profession as seriously as it is at present by the urologist. The importance of early diagnosis cannot be overemphasized, and it is inconceivable how a physician can temporize with a patient having repeated attacks of hematuria, some lasting several weeks or months, before seeking expert advice. Unfortunately patients frequently fall into the hands of unskillful cystoscopists, and are frightened from follow-up examinations, which are often necessary.

Hemorrhage following prostatectomies is often more serious than admitted, but if properly packed or held by the Pilcher or Davis bag, whether suprapubic or perineal, there will usually be no trouble. However, if bleeding again starts after removal of the bag or packing and does not quickly respond to the usual hemostatics before the pulse rate gets too high, we should not hesitate to do a cystotomy and repack or replace the bags, and push our hemostatics. As long as the pulse rate is carefully watched and kept under control there will be little use of the excuses of "shock, syncope, and exhaustion."

FRANKLIN FARMAN, M. D. (1401 South Hope Street, Los Angeles)—This essay by Doctor Ferrier upon an important urologic subject is of interest to all physicians. When speaking of control of hemorrhage, whether within the urinary tract or elsewhere, we naturally think of means to stop the bleeding. But to control hemorrhage, one must know first the cause and site of bleeding. The list as given by Ferrier, from the compilation of MacKenzie, Kretschmer and Chute, shows the multiplicity of disease entities which may produce hematuria. Every case of hematuria therefore should be subjected to an exhaustive urologic investigation, if necessary to clear up the diagnosis.

The obscure case of hematuria is usually classified as "essential," but in many instances by more painstaking examination definite pathology will be found to account for the condition such as an epithelial tumor of the ureter or kidney pelvis, or a small papilloma of the posterior urethra. In women it is easy to overlook bleeding from an intraurethral caruncle.

Undiagnosed and neglected cases of hematuria may

lead to severe secondary anemia, so besides the primary pathology, we have a blood dyscrasia to combat.

Hematuria (gross or microscopic) may occur early in bladder tumor, and by immediate cystoscopic examination many more cases of cancer will be discovered early, thereby offering the patient a good chance for cure by surgery, the cautery, radium, or x-ray.

Bleeding from the bladder neck caused by acute congestion in hypertrophy of the prostate, though troublesome, rarely is serious and usually can be controlled by catheterization, relieving the pressure and washing out the blood clots. Should this fail, suprapubic cystotomy to control the immediate hemorrhage is indicated, which procedure also serves to drain the bladder in preparation for prostatectomy.

Hemorrhage following suprapubic prostatectomy no longer is a menacing complication providing these elderly patients are not rushed to operation without proper preliminary preparation, and providing the actual enucleation of the gland is carried out not as a blind "bloody" procedure, but as an open operation under visual control.

THE DIAGNOSIS OF GENITAL LESIONS

By H. J. TEMPLETON *

DISCUSSION by Ernest K. Stratton, San Francisco; H. P. Jacobson, Los Angeles.

THE correct early diagnosis of genital lesions is of paramount importance to the patient and the public. Most of the diseases attacking the genitalia are local in their action. The importance of their early recognition lies in differentiating them from the seemingly insignificant local lesion of that most generalized of all diseases, syphilis.

I make no apologies for writing on this subject which may seem hackneyed to some. My excuse can be found in the great number of patients with maltreated lesions on their genitals who daily come to the attention of physicians doing syphilology; patients who have been told that their sore is "nothing but a hair cut," a pimple, a cold sore, or a soft chancre, and who have been dismissed after treatment with silver nitrate or calomel powder and told to "forget about it." Six weeks or so later full-blown secondary lesions develop, the spirochaetae become widely disseminated, and their chances of a permanent cure are markedly reduced. This sad sequence of events is of frequent occurrence.

The golden opportunity in the treatment of syphilis lies in its extremely early recognition and intensive treatment. To render our best service we should make our diagnosis in the first week of the chancre, before the blood Wassermann becomes positive. If we can do so, we can expect a very high percentage of cures (90 per cent Stokes). As the blood Wassermann becomes positive this percentage of possible cures declines. It becomes still lower in the secondary stage and very low in tertiary phases. In the latter it is somewhat doubtful, and a moot question, as to whether or not we can use the word "cure" in

speaking of our results. Possibly the word "arrest" would be better. This was demonstrated experimentally by Kolle when he showed that it is impossible to completely eradicate the spirochaetae in a laboratory animal if forty-five days have elapsed after inoculation. The percentage of cures seems to be inversely proportional to the duration of the infection. So the ideal toward which to strive is as early a diagnosis as is possible.

The appearance of a genital lesion is of little value in early differential diagnosis save in textbook types of cases. It would be far better if medical students were taught the futility of attempting to diagnose venereal sores by such clinical symptoms as induration, adenopathy, multiplicity, etc., or by the history of the lesions. These are apt to be snares and delusions. It has been shown that 65 per cent of *all* genital lesions contain the spirochaeta pallida. This includes the apparently innocent herpetic-looking lesions, so-called hair cuts and soft chancres, many of which we would pronounce harmless, judging by their appearance. *The only safe rule is to regard all genital lesions as potentially luetic until proved otherwise.*

Many physicians depend upon the blood Wassermann for their diagnosis. This surely is a step in the right direction, but even this valuable test will not give us as early an answer as we need, for it is rarely positive in the first week of chancre, when the chances of a cure are highest.

The one certain method of differentiating the primary lesion of syphilis from local lesions is by demonstrating the presence or absence of spirochaeta pallida by means of the darkfield microscope. Theoretically all chancres should show the presence of this organism. However, such variable factors as the personal skill of the examiner, errors in technique or previous local antiseptic treatment make it difficult to find the spirochaetae in all patients. Klauder was able to obtain positive darkfield findings in 94 per cent of untreated lesions which afterward were proved to be luetic.

The original method of doing the darkfield examination on the serum expressed from the surface of the chancre is very reliable; but it is apt to be falsely negative in those cases which have had calomel powder or caustics applied to the lesion prior to examination. This disadvantage can be removed by having physiologic saline packs applied to the sore for twenty-four to forty-eight hours before the next examination, by which time the spirochaetae will have reappeared. An even better method is that of A. Alexio, who recently reported that salt solution injected under the base of a chancre and afterward aspirated would be found to contain spirochaetae in cases in which serum from the surface was negative. If we should fail to find the organisms by these two methods we can resort to that most reliable method of gland puncture. In this procedure salt solution is injected into a neighboring inguinal gland, the gland is somewhat macerated by moving the point of the needle, the salt solution is withdrawn and examined. This is an extremely reliable procedure. It demonstrates the spirochaetae in some cases which were negative by the other methods of examination. Moreover it does away with the danger of mistaking the harmless spirochaeta refringens, which is fre-

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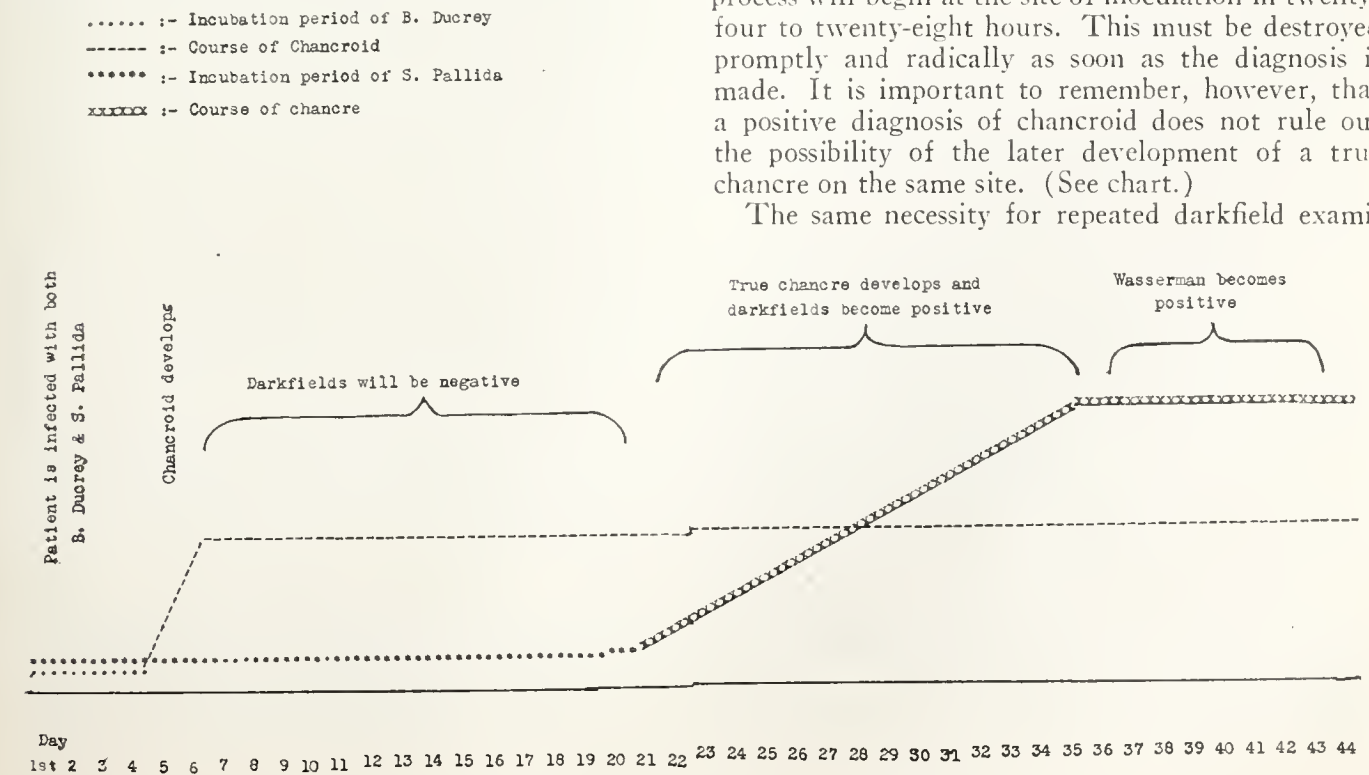
quently found on the genitals, for the spirochaeta pallida. The finding of a spirochete of the appearance of the spirochaeta pallida in an enlarged inguinal gland adjacent to a genital sore is absolute proof of syphilis. The more darkfields I do the more I incline toward using gland puncture or puncture of the base of the chancre. For I feel that by these methods the chances of error are reduced to a minimum. By repeated examinations, using these three methods, we should be able to find the spirochaetae in nearly all chancres, thus closely approaching the ideal 100 per cent.

Having spoken of the necessity of doing darkfields on all genital lesions regardless of their clinical appearance, let us consider when to do them and how often. This is an angle which is neglected in the literature. I have reviewed the Index Medicus in regard to this and have found the authorities to be very vague in their recommendations. Most of them say to do "a darkfield examination" or "dark-field examinations," but do not say how many or when. Others say "several" or "repeated" examinations. Stokes goes the farthest when he says that they should be repeated until definitely proved negative or positive.

I have prepared a chart to illustrate a point which is known by syphilologists but which has not been emphasized.*

Let us say that a man is exposed to a combined bacillus of Ducrey and spirochaeta pallida infection on the first of the month. About the third to the fifth a sore will develop from the chancroid element. He seeks the advice of a careful physician who does a darkfield on the lesion. It will be negative almost of a necessity. Others done at any time from the time of development of the chancroid, even if done daily, will probably be negative up to the twenty-first to thirty-fifth day, at which time the incuba-

*I realize that this chart is relative and that a rare spirochaeta might be found prior to the development of the true chancre, but a search for them would be like hunting for the needle in the haystack, and they would be found only in very rare instances.



tion period of the spirochaeta will have expired, the chancre will have developed and spirochaetae will be found. So we see that there can be a period of several weeks in the development of a mixed sore in which the spirochaetae exist in such meager numbers as to make it practically impossible to find them. Such repeated negative findings might very naturally lead one to the false belief that syphilis could not exist. To avoid this pitfall one must do repeated examinations until negative results have been obtained over a time limit extending beyond the incubation period of the spirochaeta; or until the diagnosis is established by this means, by a positive Wassermann, or by the appearance of clinical signs of syphilis.

Two other methods exist which help us in making an early diagnosis on genital lesions. These are the Wassermann reaction on the serum expressed from the lesion and the Kahn precipitation test on the same. Both of these become positive before the blood Wassermann does and constitute a valuable, although subordinate aid to the darkfield microscope.

By careful, repeated examinations, using one or more of the aforementioned techniques, we should be able to make an early positive diagnosis in nearly all of our patients. The occurrence of secondary syphilis or of a beginning positive Wassermann in a patient whose genital lesion we had considered benign should cause us to be extremely self-critical, for such oversight should rarely occur.

The nonsyphilitic genital lesions which have to be considered in making a differential diagnosis include soft chancres, herpes simplex, scabies, so-called "hair cuts," inguinal granuloma, epithelioma, and tuberculosis.

Soft Chancre (Chancroid)—The presence or absence of the bacillus of Ducrey can be determined by direct microscopic examination or by culture. If in doubt we can practice the French method of auto-inoculation, in which some of the material from the sore is rubbed onto the scarified arm of the patient. If the original lesion is a chancroid another like process will begin at the site of inoculation in twenty-four to twenty-eight hours. This must be destroyed promptly and radically as soon as the diagnosis is made. It is important to remember, however, that a positive diagnosis of chancroid does not rule out the possibility of the later development of a true chancre on the same site. (See chart.)

The same necessity for repeated darkfield exami-

nation holds true for "hair cuts" which, although merely traumatic at the time, frequently harbor the *spirochaeta pallida*.

Herpes Simplex—Frequently occurs on the genitals. Its onset with burning and itching and the rather characteristic grouped, scalloped appearance, will generally enable us to make a correct diagnosis. However, we should not trust our mere opinion, as a certain number will turn out to be syphilitic. Do a darkfield.

Scabies—Is the one disease occurring on the penis in which I must confess that I generally trust my clinical judgment. The appearance, distribution, intense nocturnal itching and familial contagion are so characteristic as to make the diagnosis practically certain. In atypical cases, however, with a lesion on the penis and very few elsewhere, the diagnosis would rest upon the finding of either the *acarus scabiei* or the *spirochaeta pallida*.

Inguinal granuloma has been found to be due to a specific organism. This organism can be found either in smears or sections taken from the ulcer. It can also be cultivated, inoculated onto experimental animals and recovered from the lesions so produced, thus fulfilling Koch's postulates. A case has been recently reported by J. C. McRae in which this infection and a chancre coexisted. This would further emphasize the necessity for a darkfield examination.

Epithelioma of the genitals can be diagnosed by means of a biopsy and pathologic sections. Tuberculosis also shows a characteristic picture when sectioned, with the added finding of tubercle bacilli in smears or in inoculated guinea-pigs. In the beginning, however, both epithelioma and tuberculosis may be confused with syphilis. So our old friend the darkfield microscope is again of value.

CONCLUSIONS

1. The prognosis of syphilis is best if it is diagnosed and treated before the blood Wassermann becomes positive.
2. Such an early diagnosis can only be made by the darkfield microscope.
3. Darkfield examinations should be done repeatedly until the incubation period of a possible chancre has passed.
4. All genital lesions should be suspected of being syphilitic until absolutely proved otherwise.

DISCUSSION

ERNEST K. STRATTON, M. D. (490 Post Street, San Francisco)—While this subject is of great importance to all medical men on account of the major rôle syphilis plays in every branch of medicine and surgery, it is surprising to note the number of genital lesions which are mal-handled; especially so does this seem, in light of the present-day knowledge and scientific apparatus which is at our command. Everyday patients present themselves in our large syphilis clinics with symptoms of paresis, tabes, angina pectoris, aortitis, etc., and give a history of having had a sore on the genitals, five, ten, or fifteen years ago. Many times their story is, "I consulted a doctor at that time and he informed me that it was nothing serious." Perhaps some dusting powder or caustic application was made, the lesion disappeared in two or three weeks and the patient was grateful, resting secure on this professional opinion until some irreparable damage years later brought him to learn the true nature of his disease. Another class of patients which we see too often are those with lesions on the genitals who have received salvarsan

and mercury, etc., on the suspicion that the genital lesion was a chancre. In such cases the exact status of the patient is then difficult to determine; the darkfield examination of the lesion is then negative, as may also be the blood Wassermann, due to the action of the specific therapy, or to an insufficient incubation period. This state of affairs is confusing to both the patient and physician. If the genital lesion has healed it may have been a benign eruption, such as herpes simplex; if it has not healed, perhaps it was a mixed infection or not specific at all.

I know of no instance where an accurate diagnosis is of more importance than in the case of genital lesions; if the patient's physician is not equipped to make these examinations why not refer him to a dermatologist, who is qualified and equipped to make darkfield examinations, as well as other investigative procedures which his clinical judgment might indicate. Diagnostic cooperation is one of the most important functions of our specialty.

Templeton has had a great deal of experience in this work, and has presented the subject in a thorough manner. In addition to the numerous methods which he has outlined for collecting the material for darkfield examination, I have found that the use of alcohol was of benefit, and have obtained positive findings in some cases where previous specimens had been negative following the usual method of collection.

The technique is, as follows: the crusts, débris, etc., are forcibly removed from the lesion by means of a pledget of cotton wet with alcohol; the alcohol exerts a hygroscopic action, causing an outpouring of serum; three or four wipings are first removed before collecting the specimen. Keeping in mind always the possibility of mixed infections, the diagnosis of chancroid by culture, after the method of Teague and Deibert, I believe is the most satisfactory method of ruling out this infection.

H. P. JACOBSON, M. D. (1016 South Alvarado Street, Los Angeles)—I wish to compliment Doctor Templeton upon the timeliness of the subject-matter and the masterly fashion in which he has presented it to us. The problem of syphilis is, of course, of interest alike to the general practitioner as well as the specialist, as we are all called upon to battle its ravages in some form or other in our daily practices. From the standpoint of prognosis and therapeutics we all agree, of course, that the primary stage—the chancre stage—is most important and upon its recognition will in a large measure depend the ultimate fate of the sufferer. And since the majority of victims with initial lesions fortunately or otherwise fall into the hands of the general practitioner, a timely discussion such as the essayist herewith presents on the differential diagnosis of genital lesions should certainly prove of value and benefit to all concerned. There is one condition, however, which Templeton has omitted to mention in the differential diagnosis which I wish to call attention to as being very important, and that is chancre-redup. From a medico-legal standpoint this condition is especially important when a question arises as to the nature of a genital lesion to determine a legal decision. Of course, we are all acquainted with the differential factors that serve to distinguish a primary lesion and chancre-redup; the chief difference being a regional adenopathy in the first instance, while usually no pronounced adenopathy in the second. I wish to express my appreciation to Templeton for affording me an opportunity to discuss this important subject and to call attention to chancre-redup in a consideration of the diagnosis of genital lesions.

In just the same degree by which the quality of one man's laugh in health differs from that of another, does his manner of sneezing or feeling pain in sickness differ, or his method of resisting or failing to resist bacteria, or of dealing digestively with a Welsh rarebit after midnight.—George Draper, M. D., *Harper's Monthly Magazine*.

Many paronychias begin as an abscess under the nail fold and can be cured, without incision, by lifting the fold up from the nail with the flat of a probe, scalpel, or toothpick. A small wet dressing (with or without a minute drain, as seems desirable) completes the cure in a day or two, as a rule.—*Am. J. Surg.*

THE TREATMENT OF ERYSIPELAS BY ROENTGEN RAY

By J. EDWARD HARBINSON AND JOHN D. LAWSON *
(From the Departments of Medicine and Radiology,
Woodland Clinic)

DISCUSSION by William J. Kerr, San Francisco; Albert Soiland, Los Angeles; Hiram E. Miller, San Francisco.

THE multiplicity of treatments advocated for erysipelas is the best evidence that we have had no specific form of therapy. Hippocrates advocated the use of cold water in the treatment of this disease. At the present time popular therapy, as stated by Doane, varies from the exhibition of Saint Anthony's bones to the application of cranberry poultices and the use of red flannel shirts.

Among the standard forms of treatment are: the local application of hot or cold compresses of a saturated solution of magnesium sulphate; various types of antiseptic solutions and ointments; mercuriochrome, gentian violet and other dyes intravenously; foreign blood injections; and antistreptococcic serum. For wandering erysipelas the collodion line, phenol line and other methods of compression have been used with varying success.

Despite treatment by these methods, erysipelas generally runs its course of from ten days to two weeks, treatment, in most cases, being of value only in relieving the patient symptomatically and having no influence on the lesion itself. The mortality varies from 4 to 7 per cent, being especially high in infants and almost universally fatal when the umbilical cord is involved.

Roentgen therapy for erysipelas has received very little attention in American literature except for occasional references in general articles. Hodges states that treatment by this method is valuable if only small areas are involved, and he reports good results in two cases. He advises against this form of therapy in severe, advanced lesions and in patients with an infected area more than 6 cm. in diameter.

Mackey, discussing Hodges' paper, reports the treatment of eleven patients, in ten of whom the temperature became normal in thirty hours without recurrence of fever. He concludes that the course of the disease is shortened by roentgen ray treatment.

There are several articles in the European litera-

ture in regard to this type of treatment. In 1917 Magalhaes was an unfortunate victim of erysipelas and followed the usual treatment, including serotherapy, without relief. Some time previous to the attack he had had occasion to treat a patient with carcinoma who also had erysipelas of the leg. The erysipelas was cured by the x-ray treatment. Magalhaes then decided to try this treatment upon himself and, after an exposure to the x-ray for fifteen minutes, he was able to walk with very little pain. The pain began to recur the next afternoon and he made another exposure, with complete relief. Subsequently he treated nine patients with about the same results as he had received. A gas tube and a low spark gap with a relatively long exposure was made over the affected areas and glands. In the same year (1917) Schmidt treated twenty-eight patients in seventeen of whom a drop in temperature by crisis followed one or two treatments. In four patients the drop in temperature was by lysis after two treatments; in three there were complications with extension to the mucous membrane, one with abscess. A marked retrogression of the skin condition occurred in twenty-five patients, in the other three the symptoms persisted. Daily treatments were given by rays filtered by 3 mm. aluminum.

In 1918 Hess treated fifty patients suffering with erysipelas of whom forty-three had fever. In twenty-two the temperature declined sharply in from one to two and one-half days after x-ray treatment; in six the temperature fell by lysis in two to three days; in nine there were complications, such as abscess and lobar pneumonia, and in six the erysipelas wandered to other areas. Daily treatments were given, aluminum filtered radiation being used.

In 1921 Schrader reported seven patients treated by roentgen therapy. Six yielded very promptly to treatment; one showed slight recurrence necessitating reirradiation; in five the temperature fell by crisis; in two by lysis. All yielded. He makes no statement of the technique used.

At the Woodland Clinic we have treated eleven patients with this form of therapy. In three only a small area was involved, while in the remaining moderate to large areas were infected. The temperature varied from 100 to 106; in four patients the temperature fell by crisis in twenty-four hours, while in six the temperature fell by lysis in from two to five days. In one patient the temperature dropped by crisis in twenty-four hours and remained normal for a day; then erysipelas occurred in a new area with high fever, which fell again by crisis within twenty-four hours, following another treatment. The symptoms disappeared within this time. In two patients there was an extension after the first treatment which promptly yielded after the second treatment. In every instance there was prompt relief from pain within twenty-four hours.

The average length of illness was five days and most patients received two treatments and none more than three treatments. Two patients had marked cervical adenitis which promptly responded to roentgen ray therapy. There were no other complications.

Our technique is very simple: the areas involved and a border of about 5 cm. are irradiated with

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John D. Lawson (Woodland Clinic, Woodland, California). M. D. St. Louis University, 1920. Present hospital connections: Roentgenologist Woodland Clinic and Hospital. Scientific organizations: American Roentgen Ray, Radiological Society of N. A., Pacific Coast Roentgen Ray, Yolo-Colusa Medical Society, C. M. A., A. M. A. Appointments: Captain M. O. R. C. Practice limited to Radiology since 1923. Publications: "The Treatment of Pyogenic Infection by Roentgen Irradiation," Radiology, February, 1926; "The Diagnosis and Treatment of Intrathoracic Lymphadenopathy from a Roentgenological Viewpoint," Am. J. Roentgenol., 1925; "Report of a Case of Gastric Diverticulum," Radiology, 1926; "Ureteropyelography in the Differential Diagnosis of the Upper Urinary Tract," Am. J. of Roentgenol., 1924; "Roentgen Therapy of Uterine Myoma During Pregnancy," California and West. Med., March, 1925; "Iodized Oil in the Diagnosis of Empyema and Fistulous Tracts," Surg. Gynec. Obst. (in press).

unfiltered radiation at 100 Kv., 50 cm. distance and 35 Ma minutes over each area. This is approximately two-thirds of an epilating dose and one-half of an erythema dose. Irradiation is repeated in two days if regression has not been satisfactory. A third treatment was administered to one patient, using the same factors, with no complication more serious than a definite first degree erythema.

Our experience seems to indicate that the skin is much less sensitive to irradiation when there is a definite cellulitis present than it is in its normal condition. None of these patients has had skin changes after recovery which could in any way be attributed to irradiation.

Holtzknecht's theory is that irradiation increases the metabolic rate of the cells, thus assisting in the destruction of the bacteria, also that the rays produce changes in the organisms which precludes their further production of toxin. Whatever the explanation the sharp drop in temperature shows it to be consequential. Holtzknecht's theory appeals to us as being the most logical of those advanced.

CONCLUSIONS

1. Roentgen therapy for erysipelas is a valuable form of treatment.
2. Relief is obtained generally within twenty-four hours.
3. The febrile period is shorter than in infections of equal severity treated by other measures and the usual length of illness is shortened.
4. There are, possibly, fewer complications and less chance of spread than in other forms of treatment.
5. There is no pain or discomfort attending the treatment.
6. Advanced, serious cases of erysipelas, involving fairly large areas, with high temperature and general infection may be treated successfully.

REFERENCES CITED

- Hesse, W.: *Behandlung des Erysipelas mit Rontgenstrahlen*, Munchen. med. Wchnschr., 1918, LXV, 505-508.
 De Magalhaes, J. S.: *Traitement de Erysipels par les Rayons X*, Arch. d'electric. med., Bordeaux, 1917, XXVII, 13-17.
 Schmidt, A.: *Behandlung des Erysipels mit Rontgenstrahlen*, Munchen. med. Wchnschr., 1917, LXIV, 1144.
 Schrader, R.: *Behandlung des Erysipels mittels Rontgenreizdosen*, Therap. Halbmonatsh., Berl., 1921, XXXV, 600-604.
 Hodges, Fred M.: *Roentgen Ray in Treatment of Local Inflammations, Cellulitis, and Carbuncles*, Journal Medical Association, 85, October 24, 1925, 1292-1294.
 Lawson, John D.: *The Treatment of Pyogenic Infection by Roentgen Irradiation*, Radiology, Vol. 6, February, 1926, 153.

DISCUSSION

WILLIAM J. KERR, M.D. (University of California Medical School, San Francisco)—The authors present a series of cases on the treatment of erysipelas with roentgen ray which should be of interest to all clinicians. We are all familiar with the variability of erysipelas in its clinical features; its tendency to end by crisis in a considerable number of cases in a definite period of time. It makes it, therefore, somewhat difficult to interpret the value of any special therapeutic measure under such conditions, unless we have a sufficiently large series of cases with adequate controls. The authors do not give sufficient clinical data to prove that the x-ray treatment materially shortened the course of the disease, although the average

duration of fever and the eruptions on the face were apparently shorter than ordinarily seen.

The question as to the possible effect of the roentgen ray upon the process has been discussed, and it would seem to me the most likely benefit that could be expected would probably come from a stimulation of the reticulo-endothelial system in the areas adjacent to the eruption. It has been shown definitely by experimental work that the organisms precede the indurated border as it advances in the tissues, and the roentgen ray may so stimulate the reticulo-endothelial system that the processes of immunity may be stimulated locally. The authors have not given adequate consideration to the recent experimental and clinical studies on the organisms responsible for erysipelas. It has been pretty definitely shown, I think, that a group of hemolytic streptococci are responsible for the disease, and when the soluble toxin is injected into the horse it will stimulate the production of an immune serum. An immune serum has been developed which causes local blanching upon injection into the erysipelas lesion and, when given intravenously in sufficiently large doses, apparently controls and limits the course of the disease. This would place erysipelas in about the same category as scarlet fever.

It is possible that roentgen ray therapy may be used as an adjunct to the serum therapy for erysipelas, but I do not feel it would entirely replace it in general use. Of course, one must keep in mind the precautions necessary and the dangers in the use of serum therapy.

ALBERT SOILAND, M.D. (1407 South Hope Street, Los Angeles)—The paper by Harbinson and Lawson stands out notably because of the brief and straightforward manner in which the subject is presented and the common-sense deductions from the authors' observation of the work. Among radiologists it is generally known that radiation in the proper wave form is suitable for surface lesions with or without infection. Nearly every radiologist who has had experience with radiation therapy has been struck by the rapid response to surface radiation of infectious processes either of the skin or mucous membrane.

It is rare for any individual to have the opportunity to treat this disease in numbers. We have, however, in our service had sufficient experience with erysipelas to support the authors' remarks.

With our modern knowledge of the biological effect of radiation there is ample ground for its use in the class of cases presented by the authors.

HIRAM E. MILLER, M.D. (384 Post Street, San Francisco)—Any therapeutic aid in the treatment of so serious and so frequently fatal a disease as erysipelas is most welcome. I personally have never treated erysipelas with the roentgen ray, and I do not think that the reports in the literature have been particularly convincing. From my experience in treating other acute infections of the skin with the roentgen ray I cannot feel that it has a very definite place in the treatment of erysipelas if the dosage as used by the authors is necessary. They state that most patients received two treatments of one-half an erythema dose each—that is to say a full erythema dose. I personally would feel that a skin traumatized by an erythema dose of roentgen ray would be an excellent field for a few lingering streptococci to start a recurrent and most virulent attack of erysipelas. I wonder if the same therapeutic effect could not be produced by two treatments of, say, one-eighth to one-fourth of an erythema dose.

AUTHORS (closing)—Since writing this paper Birkhaug has published his work on the treatment of sixty cases of erysipelas with specific antiserum. It would be interesting to compare the results of this form of therapy with roentgen ray therapy in an equal number of patients with erysipelas of about the same severity. We believe, if roentgen ray therapy proves to be as efficacious as treatment by specific antiserum, the former should be the treatment of choice, principally on account of the danger attending the administration of any type of antitoxin.

We realize that only a small series of cases have been reported in this paper, but the results have been very encouraging. Perhaps the report of these cases may stimu-

late others to report their results with roentgen ray treatment of erysipelas, thus giving more data so that reliable conclusions may be drawn. Most physicians have had very limited, if any, experience in treating erysipelas by roentgen ray. We are very glad to have the encouraging support of Doctor Soiland and, until we are convinced by further reports that erysipelas antistreptococci serum is definitely a better form of treatment for erysipelas, we shall continue to treat our patients by roentgen ray therapy.

The literature on this subject is quite meager, as already pointed out, and found only in the European journals. Consequently we cannot expect a preponderant mass of evidence in favor of the treatment.

One of the authors (Doctor Lawson) has recently published an article dealing with pyogenic skin lesions and their treatment by roentgen ray. He has observed that skin which is the site of an active infection will withstand from two to three erythema doses without showing any evidence of roentgen trauma. This observation has been substantiated by many roentgenologists who have treated these cases. In our experience we have not found very small doses, that is one-eighth to one-fourth of an erythema dose, to be efficacious.

CONGENITAL ATRESIA OF THE DUODENUM

WITH REPORT OF A CASE

By C. VERNER THOMPSON *

THE report of such a case as this is justified only because of the rarity of the condition. According to Tyces' system the first case was reported in 1803. Since then something over one hundred have appeared in the literature, and according to Abt there have been but three cases that have survived. These three were necessarily treated surgically.

The underlying cause for the appearance of an atresia in any portion of the intestinal tract is many times obscure. Several theories have been advanced that will account for one or a few of the lesions reported, but there is no theory that will adequately explain all atresic lesions.

One theory is that in the course of fetal development there occurs a desquamation of cells into what becomes the lumen of the gut. Canalization or an absorption of these desquamated cells then occurs as the fetal life progresses. One author has stated that the presence of the atresia may become defined as early as the fourth week of fetal life. With this idea of the absorption of an epithelial plug in the intestinal tract in mind the reason of the three types of atresias that occur becomes clear. The atresia may be (1) complete, (2) partial, and (3) in the form of a diaphragm as when all but a thin portion of the plug is absorbed.

The duodenum seems to have a certain predilection for the formation of atresias because in the few inches almost half as many occur as in the many remaining feet of gut. The involved area is more frequent in the region of the ampulla of Vater and usually just above the ampulla. The presence of one such anomaly is frequently associated with some other type of deformity; imperforate urethra, spina bifida, imperforate anus, bifurcation of the esophagus or multiple atresias in the intestinal tract else-

where being a few of the other anomalies. The mesentery or mesocolon may be partially absent or otherwise deformed. Peritonitis may be present and is usually considered of syphilitic origin.

The babies in certain instances are premature, but as a rule they are fully developed and to all appearances when delivered are perfectly normal; they are often the first born.

In general the symptoms of duodenal atresias are rather constant depending somewhat on the exact site of the obstruction and are characteristic of obstruction.

Vomiting is always present, appears immediately with the ingestion of fluid or food, starts in easily, rapidly becomes projectile, and may come immediately with the taking of food or may follow in a few minutes to half an hour or more.

Constipation is present and becomes decidedly noticeable after thirty-six, forty-eight hours or more. The movements from the meconium present may mask the fact for a number of hours that the little patient is passing nothing through the bowel.

Distention becomes marked in a short time and, of course, is more pronounced just after the taking of fluids and just before it is vomited. With the obstruction in the duodenum the distention is marked in the upper abdomen giving the belly a funnel-shaped appearance.

Peristaltic waves can always be distinguished above the obstruction if care is used in looking for them.

Anuria, because of the small absorption of fluids, soon becomes apparent. Jaundice may or may not be present and probably will not help in making the diagnosis.

Emaciation is usually rapid, especially after the first twenty-four or thirty-six hours.

Restlessness may or may not be of diagnostic help early in the life of the infant. With the dehydration that follows the inability to absorb fluids the babies frequently become restless and their cry soon begins to lose its vigor.

Differential diagnosis must take into consideration hypertrophic pyloric stenosis, cerebral hemorrhage, and acquired obstruction such as an intussusception. The diagnosis should be determined early. Hypertrophic stenosis must be ruled out. This can as a rule be done by the frequent presence of a palpable mass in the upper abdomen, and the onset of the symptoms in a case of pyloric stenosis is not always of the abruptness that is found in atresia. The hypertrophic pyloric type of obstruction as a rule allows small amounts of food to pass by and appear in the stool. The symptoms therefore do not become so pronounced until several days, weeks, or even months have elapsed.

Cerebral hemorrhage can be ruled out by the early appearance of food products in the stools and the absence of distension.

An acquired obstruction such as may come from a volvulus or from bands cannot be differentiated from an atresia if it is present at birth or if it appears very soon after birth.

The prognosis as has been indicated is very grave. Operative procedure is justified at the earliest possible moment after the diagnosis has been deter-

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mined. In the event that a single lesion is found in the duodenum gastroenterostomy is probably the operation of choice as having less technical difficulties when handling the small viscera of an infant. In the hands of a qualified surgeon resection of the atresic portion with an end-to-end anastomosis may be attempted.

CASE REPORT

Full-term baby girl born March 31, 1926, of a 30-year-old white primipara, after a normal labor of seven hours. Midline episiotomy done at delivery to save undue stretching of the perineal tissues. The past history of the mother was of no consequence in regard to the baby. She had had no serious illness, no history suggesting tuberculosis or syphilis. She had been married three and one-half years, husband apparently healthy. Family history: one sister's first baby, delivered at full term had a meningocele of which it died at 8 days of age. This same sister has since had two normal healthy babies. A second sister has had three healthy babies. A third sister, unmarried, has been operated on for tubercular peritonitis. One brother living and well. The mother's parents are living and well. The mother is well developed and nourished. The physical findings are essentially negative. She has a slightly enlarged thyroid. No evidence of tuberculosis. Blood Wassermann negative.

The infant was a plump, well-developed, full-term baby that cried lustily at birth. A careful examination following delivery revealed an apparently perfect baby. Vomiting occurred shortly after the first water had been given. The baby continued to vomit a few minutes after each feeding. It would retain feeding or fluids for twenty or thirty minutes and at times as long as one hour. After about twenty-four hours it was noticed that the vomiting had become projectile in character and also after the first day of life the vomitus was bile-stained. The baby slept

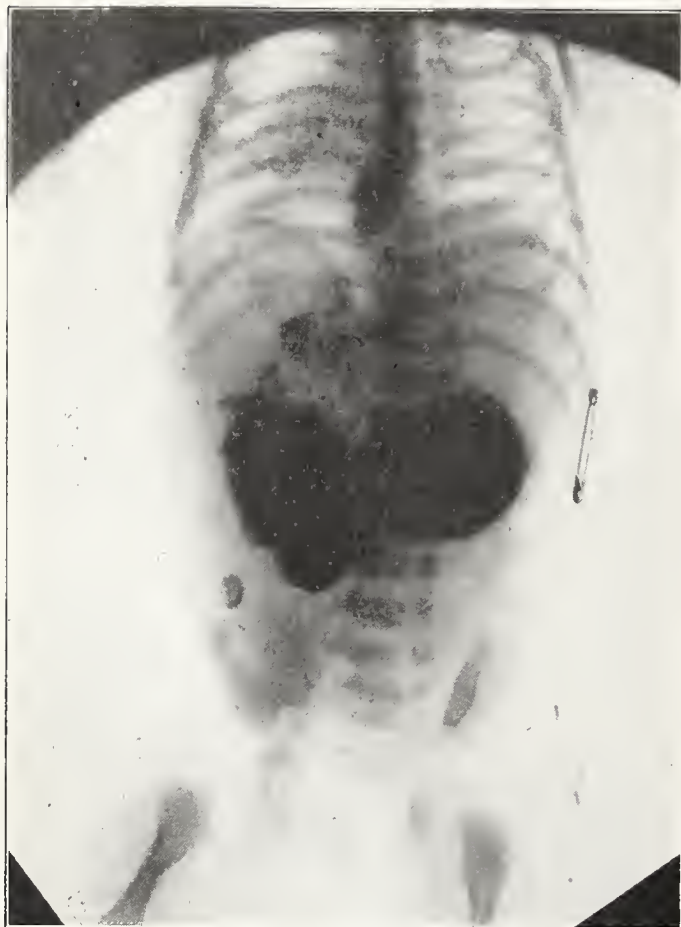


Fig. 1—Screens and films of the stomach with a barium meal demonstrated an obstruction of the bowel at about the junction of the first and second portions of the duodenum. There was very vigorous peristaltic action. The stomach was large and the first portion of the duodenum was distended. Examination forty-five minutes after the meal showed nothing to have passed the point of obstruction.

and rested well and took the nipple or breast with vigor. She voided freely the first two days, then the urine output became very scant. Meconium was passed freely a few hours after birth and she continued to have one or two movements daily, the quantity diminishing each day. Jaundice appeared on the third day. Distention of the upper abdomen with visible peristalsis was demonstrated. The baby continued to rest well and seemed contented until the end of the fourth day, when it cried more than usual. Water and glucose solution by bowel prevented dehydration from becoming especially pronounced.

The diagnosis was complete obstruction and probably of the third portion of the duodenum just below the ampulla. The constant vomiting, distention, peristaltic waves moving from left to right across the upper abdomen, and the vomiting of the bile with the nonappearance of changes in the stool and the presence of the progressive anuria were the features that determined the presence of an obstruction and its probable location. There was no palpable mass in the region of the pylorus.

A small amount of barium was mixed in the feeding formula. Under the fluoroscope, deglutition seemed normal. A moderate cardiospasm was demonstrated. The stomach was greatly dilated and there was an increased motility in the region of the pylorus. The first portion of the duodenum was greatly dilated, so much so that the roentgenologist had some difficulty in deciding just where the stomach left off and the duodenum began after it was once filled. No passage of the feeding into the jejunum could be demonstrated.

Operation revealed the anticipated findings. In addition to the atresia in the third portion of the duodenum, which consisted of about three-quarters of an inch of closed gut, the stomach and intestine were covered with fine web-like adhesions. In the mesentery of the jejunum were many small palpable nodules of pinhead size suggesting peritoneal tubercles. There was no mesocolon present. The lumen of the gut was closed off for a distance of three-quarters of an inch in the third portion of the duodenum just below the ampulla. Resection of the atresic portion of the gut was done and an end-to-end anastomosis was ultimately completed. The anastomosis was difficult to complete, as the proximal portion underwent rapid digestion from the influence of the pancreatic juices. The dilatation of the upper viscera had thinned the duodenum to the point that it could hardly be made to hold the suture material.

From the technical difficulties encountered with the open end-to-end anastomosis in an infant a gastroenterostomy in this case possibly would have been the better choice of procedure. Certainly in the hands of a less experienced surgeon than Doctor Harris, gastroenterostomy should be the procedure of choice in such a condition in an infant because less difficulties of technique are apt to be encountered.

The baby made rapid recovery from the anesthetic and gained strength the following day. Death occurred the third day after operation or the eighth day after birth.

It is with regret that this report is being made without the more complete information that would have been obtained and had a pathological study of the specimen been carried out.

I wish to acknowledge indebtedness to Drs. Fred F. Gundrum, Junius B. Harris, and Harold Zimmerman as consultants in the study of this child.

To each age its own boggy. To Victorian England the specter of Philistinism, to our own day the bugbear of standardization. Or perhaps after all they are one, and Philistinism the encroachments of which on the life of the spirit Matthew Arnold so passionately decried, and standardization, which we so stridently denounce, are only interchangeable terms for smugness and indifference and materialism. Our expostulators, living in a mechanistic age, ascribe to industry the results which the Victorian critic labored from a different point of view. But, like him, they fear the swamping of the higher values of life by complacent materialism.—*Saturday Review of Literature.*

SYPHILIS—WHEN IS IT CURED?

By IRVING R. BANCROFT *

WHEN the spirochaeta pallida was discovered in 1905, and especially when it was cultured on artificial media and also inoculated successfully in rabbits and monkeys, it seemed as though we would soon know all about syphilis, but if one studies the vast literature of syphilis he will find it like the Bible—any thesis may be proved which fits the fancy of the individual. For instance, using the work of Warthin as a basis one might conclude that the present-day treatment did no more than to drive the spirochaetae into inaccessible parts of the body like the walls of the blood vessels, especially of the aorta and the heart. He found evidence of syphilis in practically every necropsy of a person who ever had syphilis and in 40 per cent of 750 general autopsies. His studies are all in stained tissue and are made with great thoroughness. For instance, one of his assistants spent a whole year in the study of eight cases, and six weeks were spent on one heart before spirochaetae were found. His conclusions are that the blood vessels and other organs are affected more or less in every person with syphilis. Graves, working along more neurological lines, stated that a syphilitic ought never to marry, as our cures were symptomatic only. Elberston, working from the animal experimental side, showed that syphilis, when outwardly inactive and latent as far as we could discover, still may be associated with spirochaetae which are located in the glands and semen and which may be successfully inoculated into other animals.

If we approach the problem from a therapeutic point of view we come to the researches of Naguchi in testing the action of drugs on the growing spirochaetae. He measured the amount of various drugs which were necessary to kill the spirochaetae as they were growing in a certain amount of culture medium. Neoarsphenamine was a spirochaetocide in a proportion of 1 to 2500, and after reculturing for several generations six times the original amount of the drug was necessary to kill the organisms. Arsphenamine was three times stronger than neoarsphenamine. Mercury was an efficient spirochaetocide (1 to 100,000), but by reinoculation for several generations a strain of spirochaetae was developed which required thirty-five times the original dose to kill. He also found that after a rest for a generation or two without the addition of any drug that the original sensitiveness to the drug returned. This would seem to indicate that rest periods and a change of remedies are a logical procedure. If we estimate that one-thirteenth of the body weight is blood and .6 gram is the dose of neoarsphenamine used, we would have to use approximately fourteen times the dose we do to get the spirochaetocidal effect, if human blood was used as a culture medium. In the course of syphilis a certain degree of natural immunity seems to be developed as time goes on.

At first the blood contains spirochaetae, but after a time none can be demonstrated. Certain workers have used the blood from donors who were known to have had syphilis some time previously for transfusion without infecting the recipients. Juregui and Lacelotti have infected llamas and kept them infected for nine years, and have used the serum from these animals in the treatment of fifty cases of syphilis with results well comparable with specific drug treatment. However, it is fair to say that these results have been questioned. The basis of the specific protein and malarial treatment is also probably that of increasing the natural immunity, and possibly the so-called spirochaetocides do the same thing. At any rate it seems probable that the reaction of the human organism to a syphilitic infection is to develop a definite immunity.

In addition to the natural immunity which all evidence seems to indicate is a factor in the elimination of a syphilitic infection from the body we have the so-called syphilitic specifics. The experiments of Chesney and Kemp give much information and encouragement on this subject. Their experiments were performed on rabbits which were inoculated with spirochaetae and then treated with arsphenamine. They found that after a course of treatment that inoculations of extracts from the glands and organs of the rabbits were not infectious to healthy rabbits, but the untreated controls were capable of causing syphilis in another group of healthy rabbits and cures took place equally well in both old and recent cases. The doses given corresponded to .6 gram for a 132-pound man. He did other experiments in which a strain of organisms were used which had proved refractory to treatment in the human patient, and yet by inoculation experiments and treatments was proved to have been entirely cured in the rabbit. This would indicate that the rabbit has more immunity to syphilis than man.

Let us then cling to the belief that syphilis can be definitely cured, although we know that there are persons in whom the organism lies dormant or harmlessly latent for years and then may awaken to activity. All individuals who have ever had syphilis should have occasional health surveys to see if there is any evidence of renewed activity. If a definite criterion of cure is wanted the army standard is possibly the best. This requires one year of observation after all treatment has been stopped. During that year there must be no positive Wassermanns, and at the end of the year a negative spinal test and a provocative Wassermann, but in one hundred such cured patients again observed at the end of the second year, 14 per cent had relapsed and nine were doubtful. Most authorities permit marriage in an individual who has had no symptoms for two years following the cessation of two or three years' treatment and irrespective of the Wassermann. This differs little from the standard of the older Fournier, and I cannot see why the presence of either a positive or a negative Wassermann has much to do with the matter.

The Wassermann reaction if positive probably means an active response of the body tissue to syphilitic infection and as such is of value from a diagnostic point of view. It is probable that a positive reaction may also exist when there is a cured or

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latent syphilitic. Chesney and Kemp showed that a rabbit which had been treated for an old infection and still had positive reaction was not infectious when its glands and organs were inoculated into a healthy rabbit. Walserlin and Carroll, on the other hand, while using rabbits showed that in recent cases the positive Wassermann existed when there were active lesions and became negative when the active lesions subsided. The positive Wassermann then indicates that syphilis is present and in old and treated cases may mean that spirochaetae are hibernating in inaccessible parts of the body and that the individual may live his normal expectancy unless something happens to disturb the balance. We all know that there are patients in whom the infection is old, who have a positive Wassermann and in whom no treatment or combination of treatment can make negative. In a series of this character who were treated at the New York Hospital for an average period of forty months only 56 per cent were made negative, so don't get discouraged if some of your old patients still have a positive Wassermann. *Above all do not hasten a fatal issue by too intensive treatment.*

Most syphilitic patients are led to believe that their great cross is a plus Wassermann. They think themselves cheated if after a few doses of salvarsan it still remains positive. They even become syphilophobiac simply because of the 4 plus Wassermann. As soon as it becomes negative they say, "At last I am cured." Some physicians even encourage or support this view, but if they would stop to think they would realize that a negative Wassermann does not mean a cure. If the Wassermann reaction is not a reliable index of cure, what are we to rely upon? Physical examination surely will not definitely determine whether or not a cure has been effected. Warthin cites five cases where the Wassermann of both parents was negative and syphilitic babies were born, so therefore it seems fair to conclude that there is no definite criterion as to the cure of syphilis.

The important conclusion to be drawn, then, is not when a syphilitic patient is cured, for that is sometimes a question of academic interest and no one can tell definitely. The real question is when and in what amounts and for how long treatment should be given. Most early lesions can be made harmless, latent or cured, but the period during which treatment should be given should be longer than is usually advised and an occasional survey should be made of the individual for many years afterward. Patients with early lesions require, as a rule, from one to three years' treatment, and most of those with late lesions should have nearly as long a course of treatment, but the doses should be smaller. Nerve syphilis may require some form of intraspinal or malarial treatment, but that is another story. Late heart and organic types should have an entirely different procedure. Arsenic is often injurious to them and should be preceded by iodide and mercury and then small doses of arsenic preparations given carefully. The treatment of all patients should be modified by their conditions and an annual examination should be made for many years to see if any signs of syphilitic degeneration can be detected.

Special Article

✓ HYPOPHYSIS VERSUS HYPOTHALAMUS

By H. LISSER *

THE writer prefaced a chapter on the pituitary body with the following quotation:

"Thus do interpretations throng and clash, and neatly equal the commentators in number. Yet possibly each one of these unriddlings, with no doubt a host of others, is conceivable, so that wisdom will dwell upon none of them very seriously" (from Jurgen, by Cabell).

This quaint bit of irony, to some extent at least, reflects the present status of pituitary problems.

Several years ago (about 1920) Camus and Roussy declared war on the then prevalent conceptions of pituitary function. They seized upon a relatively unexplained region, the hypothalamus, not far from the hypophysis, and established their base of operations in the tuber cinereum. They contented themselves, modestly at first, by stealing the diabetes insipidus syndrome from pituitary ownership, which they produced experimentally in dogs by injuring the tuber cinereum (the hypophysis remaining intact). Before long they made another invasion and laid claim to proprietary rights over Frölich's adiposogenital dystrophy which had been in possession of the pituitary since Frölich's first description in 1901. They had reproduced this clinical complex in dogs by traumatizing the hypothalamus (again, supposedly, without harm to the hypophysis).

Meanwhile the pituitary body was torn asunder. Originally separated into two parts, a front and a behind, further investigation produced further divisions: a pars intermedia, and a pars tuberalis (surrounding the infundibular stalk and extending up into the floor of the third ventricle). The respective guardians of these several lobes claimed certain characteristics, powers and functions for their pet portions which conflicted or trespassed one upon the other. In the confusion such matters as skeletal growth, genital disturbances, obesity, emaciation, polyuria and polydipsia, and interrelations with other ductless glands (especially the thyroid, suprarenals, and gonads) became involved and disputed. Laborious classifications of the several functions of the several lobes, whether clinical, pathological or physiological, did not serve to clarify the confusion. Laudable efforts they were, but their orderliness did not rest on sufficiently secure foundations.

The attacks of Camus and Roussy, aided and abetted by Bailey and Bremer, Houssay, Leschke, Curtis and others, caused dismay in the ranks of the

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traditional hypophysists and some forsook their pituitary allegiance, fleeing over the pituitary stalk into the depths of the hypothalamus to rally round the new genitotrophic centers. The vanguard of the hypothalamists became so radical in their views that they refused to admit that the pituitary exercised any function whatsoever. Its indispensability to life had already been challenged (Dandy, etc.); now even its functional significance was scorned.

It was fortunate in this turbulent state of affairs that two leaders arose, one a veteran of adrenal fame, Professor Abel of Johns Hopkins, the other, Professor Evans of the University of California. The former took charge of the posterior portion of the hypophysis, while the latter concentrated his efforts mainly on the anterior lobe. They entrenched themselves within the sella turcica and speedily regained some of the ground which seemed to have been lost.

Professor Abel isolated a tartrate from the pars posterior and pars intermedia, not yet of entire chemical purity, but of extraordinary potency being 1200 times as powerful as the acid phosphate of histamin, heretofore the strongest smooth muscle stimulant known. Abel and Geiling observed "that the floor of the third ventricle in the immediate vicinity and inclusive of the tuber cinereum contains a blood-pressure-raising and oxytocic substance quite indistinguishable from that present in the posterior lobe of the hypophysis." In ablation of the hypophysis this accessory tissue cannot be removed; it could still perform the function of the posterior lobe and thus prevent a diabetes insipidus. Abel,¹ therefore, is disinclined to accept the negative position of Camus and Roussy "in regard to the function of hypophyseal tissue."

Evans² and coworkers prepared a fresh bovine anterior lobe fluid which had remarkable growth-inducing properties. Repeated injections of this fluid into normal rats produced gigantism, and a replacement therapy with this extract, in rats dwarfed by an early hypophysectomy, stimulated normal growth and repaired the pituitary deficiency. This work was so convincing that Roussy and Bremer have retracted somewhat from their complete skepticism of pituitary function and have granted that "the rôle of the anterior pituitary in skeletal growth is well established."

P. E. Smith, who, it will be remembered, performed the delicate hypophysectomies on tadpoles and who was able to repair the resultant disabilities (a slowed growth rate, suprarenal cortex and thyroid atrophy, pigmentary changes and failure to metamorphose) by injections of Evans' bovine anterior lobe fluid, proceeded to collaborate with Evans in experiments on the rat. At first he produced pituitary deficiency by what he now calls a "crude method," the injection of chromic acid into the gland. Dwarfism not only resulted from this operation, but also significant degenerations in the thyroid, suprarenals, and gonads. As related, the dwarfism was corrected by injections of Evans' anterior lobe fluid, but late reports indicate that the secondary

changes in the other endocrine organs cannot be repaired by this hormone.

Smith,³ now at Stanford University, sheds further light on these problems in a recent paper. He has devised a new method of pituitary ablation in the rat. The gland is sucked out through a glass cannula with negative pressure, after the ventral surface has been exposed. The dural sheath of the gland, dorsally, and the pituitary stalk are left intact, which prevents the escape of cerebrospinal fluid. The hypothalamus is not injured. In another series of rats the pituitary has been carefully avoided while lesions have been made in the hypothalamus. Smith claims that "these two operations, pituitary ablation and tuberal injury, produce distinct and characteristic syndromes." The hypophysectomy syndrome consists chiefly of: "an almost complete inhibition in growth in the young animal, and a progressive loss of weight (cachexia) in the adult; an atrophy of the genital system with loss of libido sexualis, and in the female an immediate cessation of the sex cycles; an atrophy of the thyroids, parathyroids and suprarenal cortex; and a general physical impairment." This experimental syndrome corresponds closely to the clinical complex, hypophyseal cachexia (Simmond's disease), of which a few cases have been recorded (mostly in the German literature), characterized as a rule by a chronic course, progressive emaciation and fatal termination; the only lesion at necropsy being a complete atrophy of the pituitary body. Smith has been successful in restoring his hypophysectomized rats to normal, both male and female, young and adult, not only in respect to growth but also as regards gonadal function and repair of thyroid, parathyroids and suprarenals—by a replacement therapy consisting of daily intramuscular homotransplants of living hypophyseal tissue.

In contrast to the foregoing, injury to the hypothalamus produced adiposity and genital atrophy, an experimental state corresponding to what is generally referred to, in the human, as Frölich's syndrome (dystrophia adiposogenitalis), although the original case of Frölich's, a boy with pituitary tumor, also showed skeletal undergrowth. It must be admitted, however, that this relatively common clinical disorder is but rarely attended by skeletal retardation. These clean-cut experiments of Smith are rather a shock to those who cling to the idea of a pituitary obesity, and who believe they have helped to reduce such adiposity and restore menstruation by the administration of pituitary extracts. This tuberal obesity may be extreme, biochemical examination disclosing that 50 to 75 per cent of the total weight is fat. Injection of Evans' anterior pituitary extract has no effect on the adiposity or genital dystrophy, but Smith does not state whether transplants of living pituitary tissue are likewise ineffectual.

It would seem, therefore, that the pituitary body has not entirely lost its place as an endocrine organ, but that some of the metabolic derangements formerly ascribed to it (obesity, polyuria, polydipsia, etc.) may be due to disturbances of so-called genitotrophic centers in the hypothalamus. But the end is not yet, and a "prepared open mind" is the safest

1. Bull. of the Johns Hopkins Hospital, 1926, 38, 1-32.

2. The Function of the Anterior Hypophysis, Harvey Lecture, 1924.

3. Journal American Medical Association, 1927, 88, 158-161.

attitude. In other words, one may be permitted a certain conservatism sitting on the fence, as it were, the fence in this case being the pituitary stalk, with one foot in the hypophysis and the other in the hypothalamus. Such a compromised position has been adopted by Biedl, who offers a theory which Solis-Cohen described as "more than highly plausible," even "seductive." For such disorders as Frölich's syndrome and diabetes insipidus he would postulate three pathogenetic possibilities: (a) disease or defect of the hypophysis (pars intermedia or posterior lobe) with deficient hormone; (b) obstruction of an assumed pathway (for instance by tumor or internal hydrocephalus) preventing a normal amount of hormone from reaching or energizing certain metabolic and genitotrophic centers in the hypothalamus; and (c) cerebral lesions of these alleged trophic centers themselves, such as tumor, traumatism, tuberculosis, syphilis or encephalitis, or congenital defect.

This platform is certainly broad enough for all parties to the controversy, probably too broad. Meanwhile many of us as interested spectators can take seats on the pituitary stalk and watch the struggle between hypophysis and hypothalamus.

CLINICAL NOTES, CASE REPORTS AND NEW INSTRUMENTS

STAPHYLOCOCCUS SEPTICEMIA

CASE REPORTS

By ALFRED C. REED AND FRANK E. STILES *

CASE 1—E. E. This patient, a girl aged 14, was admitted complaining of deep pain in the right thigh. She stated that as she was getting up from the supper table four days before admission she experienced a severe sharp pain in her right thigh about halfway between the knee and the hip. Previous to this she had been feeling well, doing her daily duties and playing with other children with no discomfort whatever. The pain increased, she remained in bed four days, and as there was no improvement sought medical relief.

Past History—Had measles at 3; tonsillitis followed by tonsillectomy at 10; mumps at 13; and influenza ten months ago. Last year she had several generalized crops of boils, the last of which disappeared six months ago.

Physical examination showed a well-developed and well-nourished girl with flushed, dry skin, lying in a fixed position, although not evidently in great pain. The anterior cervical glands were somewhat enlarged. Her extremities presented the only important abnormalities. There were many small maculo-papular lesions on both

legs. Some small old scars were seen on the legs, residua of the boils of six months previous. Definite point tenderness was elicited over the upper third of the right femur, and she cried out in pain upon flexion of the leg on the thigh.

Laboratory work on admission showed a red blood count of 4,000,000 with 70 per cent hemoglobin, and a white count of 8600 with a normal differential count. The urine was normal. The Wassermann was negative.

Her temperature was of a septic type, high in the daytime and low at night, ranging from 105 to 100 F. Raised, swollen, painful areas similar to that on the thigh appeared day after day in the following order: the left thigh, left leg, right hand, sternum, left arm, left hand, right arm. Three blood cultures taken on successive days were all positive for staphylococcus aureus. The red cell count ranged from 4,000,000 on admission to 2,600,000 the day before death. The white count ranged from 9000 to 5000, the latter being the last taken. The polymorphonuclear content never rose above 76 per cent. X-rays of the right femur and hip were negative. Except for slight delirium on the second day when her temperature was 105, she was mentally clear till the morning of her death, and except for the painful swellings already referred to and a sallow, jaundiced appearance to the skin, the physical findings remained the same until two days before death, when bronchopneumonia appeared in both lungs. Death came on the eleventh day after admission.

Treatment—Hot epsom salt compresses were used on the painful areas, with salicylates and codein sufficient to control pain. Daily doses of 1 per cent gentian violet were given intravenously for five days in these respective amounts: 1-15 cc., 2-15 cc., 3-20 cc., 4-20 cc., 5-25 cc.

Autopsy—Every part of the body examined was found saturated with pus. Multiple abscesses exuding pus were found in the soft tissues under the skin at the site of the swollen areas referred to above. Abscesses were also found in the mediastinum, lungs, pericardium, heart, spleen, liver, and kidneys. Smears from these tissues showed numerous small clusters of staphylococci, and microscopical study of the organs disclosed innumerable abscesses.

The pathological diagnoses were: purulent dermatitis, purulent pericarditis with effusion, acute myocarditis, empyema, and miliary abscesses of the spleen, kidneys, and liver. The cause of death was staphylococcus septicemia, probably resulting from her previous boils.

Comment—This case is typical throughout. The portal of entry was apparently an earlier furunculosis, a source which almost invariably leads to a fatal termination. The metastatic abscesses were unusually numerous and widely distributed. The low white count measured the fulminating type of infection. The absence of osteomyelitis is worthy of note.

CASE 2—R. C. This patient was seen by one of us (A. C. R.) on January 20, 1926, when his complaint was of a boil on the upper lip, with several enlarged glands below the jaw. He had chronically infected tonsil stumps, otherwise was normal. Mercurochrome was applied to the boil after free drainage. Nine days later he had a crop of small pustulations on the face, the anterior cervical glands were much enlarged and there was a painful, raised, tender, reddish spot on each knee. Temperature was 99.6 F. on February 1, similar spots were distributed well over the lower extremities, and the face and neck. On February 6, the lesions were maximal, temperature ranged between 99.4 and 101.6. Smears from the suppurating skin lesions showed pure staphylococcus and the white blood count was 10,900 with 73 per cent polynuclears. The patient felt quite well. Blood cultures were not made. Treatment with mercurochrome applications and epsom salt compresses did not limit or control the skin lesions. Finally gentian violet, 1 per cent solution, was given intravenously in a 30 cc. dosage. The temperature came to normal, no new lesions appeared and no recurrence up to March 10, 1927.

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- BEDSIDE MEDICINE FOR BEDSIDE DOCTORS -

An open forum for brief discussions of the workaday problems of the bedside doctor. Suggestions for subjects and discussants invited. Useful extracts from letters will be published.

UNDER WHAT CONDITIONS, IF ANY, IS APPENDICOSTOMY JUSTIFIABLE?

The Editor—When Wier's report suggesting the possibilities of appendicostomy reached Manila, it found surgeons John R. McDill, P. K. Gilman, and this editor so sorely tried by fatalities from amebiasis, about which but little was then known, that in appendicostomy we seemed to see new promise. I still retain a mental picture of the pleasure we had in demonstrating the technique of the new procedure and the follow-up method of irrigation to a largely attended meeting of the medical society. That mental picture was quickly spoiled by the chagrin of failures which, looked at from the point of view of our present knowledge, as indicated in this excellent discussion, might have been anticipated. But it must be remembered in extenuation that at that time the question of whether fluid introduced through the rectum ever reached the cecum was a highly controversial one.

As Gilman says and other discussants imply, the chief advantage of appendicostomy in amebiasis, when it did help, was probably due to easier treatment of lesions in the appendix or about its opening into the bowel, a service that is even more effectively rendered by removing the appendix. Appendicostomy, appendectomy or cecostomy, as all the discussants say, are now comparatively simple operations, but any of them may be far from simple when attempted in a severe mixed amebic and bacterial infection involving the cecum and appendix, of the kind still common in the tropics.

However, such conditions are so rarely seen these days that they would hardly require consideration in deciding to do the operation of appendicostomy, even were that operation as full of promise as it at one time appeared to be, which it isn't.

P. K. Gilman *—Fixation of the appendix in the abdominal wall and using it as a fistula for irrigation of the colon was first performed by Weir. This comparatively easy operation suffered a not uncommon experience of a new surgical procedure. Enthusiasts, ignorant of or ignoring the mechanical and physical fundamentals of the diseased region to be influenced, popularized appendicostomy. This popularity waned deservedly, the pendulum swinging too far, however, as it had previously swung too far in favor of the operation. While the indications justifying appendicostomy are comparatively rare, I feel that there is still a place for this therapeutic aid.

Introduced for purposes of lavage of the large

bowel and for the introduction of drugs we now know this purpose to be as readily accomplished by rectal administration. The x-ray has shown us that fluid injected from below promptly and completely reaches all parts of the large bowel. However, in certain intractable amebic infections of the colon where oral and rectal medication have failed, prompt improvement has followed an appendicostomy and the introduction of medicaments. This improvement may be due to the fact that the drugs reach the lining of the appendix in greater concentration than is possible by rectal administration and thus put a stop to reinfection of the large bowel from the appendiceal mucosa. Also appendectomy by removing this focus might have in these patients accomplished the same result as it did in others where removal was done instead of appendicostomy. Be that as it may, I believe in carefully selected patients with intractable amebic colitis appendicostomy is not troublesome but easily cared for as the normal direction of peristalsis toward the cecum and the valve-like character of the opening into the bowel prevent escape of cecal contents, while lavage through it is simple enough to permit the patient to carry this out.

In nonspecific colitis where the object is not lavage but rest of the colon by diversion of the fecal stream, the operation is useless. Similarly the operation fails when performed to allow lavage in chronic constipation. Here the effect is but temporary and possesses no advantage over properly performed colonic irrigations.

Charles Eaton Phillips—To judge the merits of a surgical procedure it must be considered from the angles: (a) Is it theoretically right? (b) Is it successful?

That a medicinal substance injected through the appendicostomy opening is more efficient than if injected per rectum is not theoretically sound. It certainly does not justify the performance of a major operation to bring it about.

The fundamental principles of treating infections of the colon must be rest, drainage, and cleanliness. Many patients recover without recourse to these severe measures and in them surgery is not indicated. When surgery is indicated it should be adequate.

In the June, 1925, number of CALIFORNIA AND WESTERN MEDICINE I laid down the following rules for the "surgical treatment of the diseases of the colon." Surgery is indicated in: (a) Acute infections of the colon which have not responded to the usual line of treatment and where the continuance of the disease threatens the life of the patient. (b) Chronic infections of the colon which have not responded to the usual treatment and which are so severe that a continuance of the disease may lead to stricture, malignancy or a serious interference with the general health. (c) In neoplasms of the large

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intestine, where irritation is lessened by diverting the intestinal content.

It was only after a rather extensive experience with the operation of appendicostomy in the treatment of amebic infections that I abandoned it and limited surgical interference to cecostomy. Technically it is as simple and its efficiency is incomparably greater than appendicostomy.

The difficulties of repair are not great. Theoretically it is right and practically it accomplishes the purpose for which it is intended.

Appendicostomy is not theoretically or practically right and in my opinion there is no place for it.

Rea Smith*—The two indications usually given for appendicostomy are (1) irrigation for medication of the colon, (2) *bowel drainage* for rest or relief of obstruction.

It seems to me that there is no sound physiological basis for its performance for medication. The bowel is provided with a mechanism for peristalsis and reverse peristalsis, and if unobstructed, irrigation from the rectum will reach any part of the colon as easily as through the appendicostomy opening.

The patients who do not clear up after ordinary lavage and which seem to demand appendicostomy for medication of the colon are those with a partial obstruction in the ascending colon and a dilated, toneless cecum. If surgery is indicated, to my mind it should be directed toward the relief of the obstruction and restoration of the normal peristaltic waves, rather than opening the appendix. The tying of the cecum to the anterior wall by appendicostomy in itself interferes with the bowel's emptying and tends to produce a cecal stasis, so that after the appendicostomy has closed the patient is very likely to carry during the rest of his life a crippled cecum which fails to empty properly.

Cecostomy, in my opinion, is a much better operation than appendicostomy for the purpose of bowel drainage in instances of complete obstruction lower down, especially as a preparatory measure for a radical removal of the obstruction after relief of toxemia.

In short, I believe that appendicostomy for medication is an unnecessary procedure likely to be followed by rather serious complications, and that cecostomy is a better and surer operation for bowel drainage when that is indicated, so that I can see no surgical indication for its performance.

Harrison W. Jones*—Every operation performed should bring satisfaction to both surgeon

and patient. I have had a reasonably large experience with operative drainage of the intestinal tract and have used appendicostomy for both medication and drainage. The medical patient was one of amebic infection that had resisted all forms of medication by oral administration. I decided to fix the appendix in the abdominal wall, open it and thus administer medicine and irrigation directly. This treatment was continued religiously for three months with no apparent results. As a last resort I did an appendectomy and followed with oral medication which brought about a permanent cure at the end of four months.

My patients in whom appendicostomy or cecostomy was performed for obstruction are twenty-six. In five the appendicostomy was done for the purpose of drainage. None of them drained properly, and I had to resort to cecostomy in order to get sufficient drainage that my patient might make sufficient progress to make him at least a fair risk for a radical operation. In the remainder I did a cecostomy and have abandoned appendicostomy entirely and have been highly pleased with the procedure.

H. H. Searls*—The operation of appendicostomy is rarely indicated. A search of the records of the University of California Hospital shows but one patient on whom it was performed. A native of Tahiti, suffering from an aggravated and obstinate amebic dysentery, after many weeks of medical treatment, finally only gained relief following appendicostomy by Doctor Terry. Irrigation with quinin bisulphate and later with dilute thymol through the fistula thus established was followed by arrest of the severe dysentery and a corresponding improvement in the patient's general condition.

The modern trend of surgery, however, is away from the once popular operation of appendicostomy; cecostomy, permitting the introduction of a larger tube, being used in place of it, both for medication of the large bowel and for relief of low obstruction. For the latter condition appendicostomy is nearly always a failure. In such a condition as that found in the patient above cited I feel that appendicostomy is justifiable and indeed proved its value. It has one point in its favor over cecostomy in that termination of the fistulous tract by appendectomy is far easier than the closure of the cecostomy opening.

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Smallpox is becoming increasingly rare on the European continent, the Health Section of the League of Nations finds. Most of the cases reported for 1926 (748) were in England.

The United States, however, had 27,000 reported cases during the same period, which has led the American Dermatological Association to adopt resolutions urging the enactment of universal vaccination regulations.

Sometimes we wonder what the anti-vaccinationists are thinking about when they claim sanitation "does it." Here is the leading country in the world in community and private sanitation, yet look at the number of cases of smallpox. Figures do speak.—Editorial, *Ohio State M. J.*

EDITORIALS

THE PASSING OF A BELOVED PHYSICIAN

The death on the ninth of March of Dr. William E. Musgrave at his hospitable "Riverwood" home in the Santa Cruz mountains, removes a strong personality from the medical world, and brings our appreciation of a truly great man closer to us. The loss is not confined to the community in which he lived, nor even to the state of California, but will be felt throughout the nation, and will extend across the Pacific to the Philippine Islands where he labored for many years. Socially, he was known as a man of broad culture, of rare kindness and charm, an original thinker himself, as well as a generous interpreter of the ideas of other men. His large vision, his wonderful grasp of detail, his wide experience in institutional and organization work, his intense loyalty to the profession of medicine, made him an outstanding figure in American medical journalism. An ardent lover of the beauties of nature, animal life, the songs of birds, the flowers, the trees, the mountains and the winding streams all appealed to him as if a part of his own life and being. To him the ideals of his profession were sacred. He appreciated both the joy of life and the duty of life. The outstanding thought in his mind was for ways and means to make living sweeter and easier, to lift mankind in general to a higher and happier state.

In his philanthropic endeavors he was fortunate in having for associate his beloved wife, who interested herself intensely in his work and cooperated in every effort where she might prove helpful. Our hearts go out in deepest sympathy to Mrs. Musgrave in her supreme loss. May the memory of a devoted husband and of the happy years spent with him, and the knowledge that he had the love and esteem of many friends and admiring colleagues help to comfort and sustain her. To his funeral came intimate friends from far and near. He was laid to rest at "Riverwood" on a mound overlooking the beautiful waters of the San Lorenzo River, a spot he loved dearly.

Doctor Musgrave's father was one of the family of the same name of Edenhall, England. His mother's father was the Thomas recorded as Daniel Boone's compatriot. Her mother, who was a Hayes, was a close blood relative of President Hayes. He was born on the old Thomas homestead at Farmington, Tennessee, September 12, 1869, and lived in the vicinity during his early years. He attended public school there and, after graduation from the normal school, spent three years at the Haynes-McLean College, Lewisburg, Tennessee. His Doctor of Medicine degree was awarded by the George Washington University in 1901. His senior year was 1899, but on account of his absence in Cuba, Porto Rico and the Philippines, during the Spanish-American War, the degree was not conferred upon him until the year 1901.

For some years before his graduation in medicine he had been working in Washington, D. C., in

the laboratories of his preceptors, Surgeon-General Sternberg and Walter Reed. He was executive on the hospital ship "Missouri" during her conversion from a freighter to a hospital ship, and thereafter until the war was practically over.

He then went to the Philippines where he served as pathologist at the great First Reserve Hospital, and later with the Army Pathological Laboratory until civil government was established. He was "loaned" to the new civil government and helped to establish the first units of the government laboratories, which later became the Bureau of Science. When the medical school was established as the first unit of the University of the Philippines he was appointed Professor of Medicine and Chief of Clinics in the Philippine General Hospital. Later he became Dean and Professor of Medicine in the College and Director of Hospitals; and organized the subsidiary schools of Pharmacy, Dentistry, Veterinary Medicine, the Graduate School of Tropical Medicine and Public Health. He also converted the large School of Nursing into a University School and created graduate departments in that school. He was one of the founders and for one term the president of the Manila Medical Society and the Philippine Islands Medical Association, and was delegate from that association to the American Medical Association in 1905, and again in 1911. He was one of the founders and first secretaries of the Far East Association of Tropical Medicine. As chairman of the Government Committee that worked for three years on the problem of excessive infant mortality of the tropics he published an exhaustive report of eleven hundred pages.

In 1917, after more than eighteen years of tropical experience in research, administrative and clinical medicine, he returned to San Francisco in uncertain health. During the World War he held the rank of Captain in the Medical Corps. In San Francisco he reorganized the Children's Hospital and continued as its director for five years. In the meantime he was appointed director of the University of California Hospital, which he reorganized. He succeeded in taking over Hahnemann Hospital from the old Homeopathic Medical School and converted it into an industrial medicine hospital. St. Luke's Hospital was also drawn into the teaching group by a strong affiliation.

Meanwhile his health failing to sustain him in such strenuous work, he resigned and accepted the lighter position of secretary of the California Medical Association and editor of CALIFORNIA AND WESTERN MEDICINE. After two years he gave up the secretaryship, but continued as editor of CALIFORNIA AND WESTERN MEDICINE and contributed largely to the founding and editing of *Better Health*. He was for six years leader of the hospital betterment work in California. At the time of his death, and for two years prior thereto, he was president of the Santa Cruz County Medical Society.

Editorial work was congenial to him. He served for years as editor of the *Bulletin of the Manila Medical Society* and as associate editor of the *Philippine Journal of Science*. In 1900, with R. P. Strong, he did early work on bacillary dysentery. His lengthiest publication was his report on infant mortality of the tropics. He wrote several exten-

sive monographs, besides scores of special articles on amebiasis, trypanosomiasis and streptothricosis, and was awarded a medal at the Bombay International Congress of Tropical Medicine. These names, amebiasis and trypanosomiasis, were coined by Doctor Musgrave. He also wrote extensively on fluke infections, malaria, tropical neuritis, and hundreds of other essays and addresses, published in both scientific and popular magazines. He was a frequent contributor to the editorial columns of the *Journal of the American Medical Association*.

As chairman of the committee of arrangements for the San Francisco session he displayed marked executive ability and published *Medical California*, a souvenir number of the meeting. In 1923-24 he served as vice-president of the American Medical Association.

For many years Doctor Musgrave was recognized as a leader in the medical world. His views on the social, civil, and economic relations of physicians to the public had much to do in shaping and directing the policies of organized medicine. While an ardent advocate of free medical attention to the indigent sick, he pointed to the danger of indiscriminate charity and the consequent pauperization of the American public by opposing with all the might of his facile pen every tendency toward socialized medicine.

Doctor Musgrave did more than any other man to place the medical profession of California in the forefront of medical associations throughout the country. He brought our state journal to such a high plane of quality that it bows to no other similar medical publication in America. It is a monument to the man who did so much to give it both form and substance. His ideals were in keeping with the best traditions of our calling, and no sacrifice was too great for him to make in order to maintain a high standard of excellence in whatever work he undertook. As a leader of men he pointed the way by directing our mental activities toward the investigation of vital problems; in solving which he himself in his own researches demonstrated beautifully the finest use of the scientific method. His contributions to the betterment of the profession remain an inspiration to his colleagues and give an additional value and zest to life.

Few men, even in the medical profession, though intimately acquainted with Doctor Musgrave, knew of his great versatility and accomplishments in the field of literature and scientific research. His modesty in reference to what he himself had done has become apparent since his death, as indicated by a careful perusal of his bibliography. Naturally what Doctor Musgrave has done for the good of humanity will be compared with the work of others in the profession who have passed to the Great Beyond. Such a comparison will be most favorable to Doctor Musgrave's record of achievements and will place his name in the forefront of those who have labored for the advancement of science in its service to mankind.

"The noonday never knows
What names immortal are;
'Tis night alone that shows
How star surpasseth star."

"PAPA SPANK"

Physicians are regulated, instructed, overruled, criticized; often punished by regulations, initiated and enforced by nonmedical departments, boards, bureaus, directors of this and that agency of government to an extent rarely appreciated. The maximum legal dosage of several important medicines is fixed for them by persons who are innocent of even a smattering of knowledge of the requirements. From the scores of nonmedical government agencies there flows a constant stream of criticism of doctors, paid for at government expense. The gist of much of this tax-paid propaganda is to the effect that "the average doctor" is incompetent or dishonest, largely because he resents having his judgment as to what is best for his patients overruled by nonmedical bureaucrats and also because he usually fails to "cooperate" with these bureaus by reporting the most intimate frailties and misfortunes of his patients so that they may be made matters of government record.

This net of control over doctors by those who make and enforce laws is being drawn tighter and tighter. It has now reached a point where no physician can practice his profession honestly, intelligently, and protect the interests of his patients without very frequent violations of law and probably daily violations of the orders and instructions of bureaucrats that have the force of law.

Still "regulation," restriction, and thou-shall-not edicts keep pouring out from government printing presses.

A new one, and particularly bold, is shown in the following quotation (italics ours) from the last annual report of the Industrial Accident Commission of California:

"For many years it has been the unchanging opinion of the medical profession that hernias are not of traumatic origin in the sense that they are rarely the result of a single strain or injury but, rather, are caused by the successive strains to which the physical body is subjected in the ordinary course of living. Within the last *two years* the Commission, *with its experience acquired in this field*, reached the conclusion that the *medical profession was not entirely correct* in its position on this question."

Contrast this conclusion, arrived at by a commission of three laymen who know nothing about medicine or hernia, but which nevertheless sets medical judgment aside, with the following dignified medical statement by Morton R. Gibbons, Medical Director of the Commission (but not a member) published in the same annual report:

"In the case of hernia it must be assumed that (1) a predisposition existed, or (2) a hernia, known or unknown to the workman existed, or (3) some extremely serious injury or strain intervened to produce the disability. In the latter instance it is easy to decide. In the first instance the character and degree of injury must govern the decision. The claimant should generally be compensated in proportion to the severity of the cause.

"In the second instance we must decide whether or not an aggravation has been caused by industrial strain. If aggravation has occurred from industrial strain by injury, then the degree of strain or injury will govern the extent of compensation."

However, it is not the commission's ruling that makes their diagnosis humorous, silly or plain stupid, but it is the fact that a bureau of three laymen conclude "from their experience" that the medical pro-

fession is wrong in its opinions; and it is this laymen's diagnosis that has the full force of law.—W. E. M.

EDITORIAL ANNOUNCEMENT

The death of Dr. William Everett Musgrave, whose editorial management of CALIFORNIA AND WESTERN MEDICINE played so large a part in its recent development, placed upon the Council of the California Medical Association the necessity of carrying on this work.

The Council, at its meeting on March 19, decided that Dr. George H. Kress of Los Angeles and Dr. Emma W. Pope of San Francisco should be placed in charge as editors.

An editorial committee with power of general supervision, consisting of the president, the president-elect, the chairman of the Council, and the two editors was also appointed.

This Convention number of CALIFORNIA AND WESTERN MEDICINE is practically what our late editor had outlined. The general editorial and other policy of CALIFORNIA AND WESTERN MEDICINE will be along the lines laid down by its late editor.

O God, who dwellest not in houses built by hands, but revealest Thyself in the lives of men and women who serve the world, hallow with Thy blessing this building reared for the fellowship of those who minister to the health of bodies and of minds. Let Thy blessing rest upon all who planned and all who labored to erect this edifice, and upon those who shall direct its use. Foster here both the science and art of physical well-being. May those who meet within these walls help each other to understand the causes and cure of disease, to be skilled in safeguarding and increasing public health, and to aid mankind to attain greater vigor for their work and play.

Grant that this Academy of Medicine rich with the memories of physicians and surgeons honored and loved in their generations, may uphold the standards and traditions of a high calling, and inspire its members with open-mindedness to truth, diligence in study, courage in the discharge of duty, reverence for those they serve, and unselfish devotion to their welfare. In the midst of this wealthy city, enable these servants of humanity to remain untainted by sordid ideals, and by their life and work to assist in leavening the community with the spirit of the Son of man who came not to be ministered unto but to minister, and who set men free from ills of the flesh and spirit that they might share His own abundant life. Amen.—Dedicatory prayer (Rev. Dr. Henry Sloane Coffin), *The New York Academy of Medicine*.

The America of 1927 is a nation being fed a standardized education from standardized textbooks by teachers so standardized that a breach of the conventions of doctrine may lead to penalties; a nation to which a syndicated press hands out standardized opinions, a standardized philosophy of living and loving, standardized jests, comic strips, and stories, with the precision that the manufacturer supplies it with ready-made clothing cut to a standard length and dyed to a standard color; a nation in which labor saving devices, and telephones, and automobiles are undermining the stanchions of individuality by wiping out isolation and so standardizing experience. What, they ask, lies before such a country but a regimen of living and thinking in which no man differs from his neighbor, a civilization rendered colorless and flavorless through uniformity, and inert through similarity of ideas?—*Saturday Review of Literature*.

After the service one of the members said to him: "Pastor, what am dis heah 'status quo'?"

Gathering his wits together, the pastor replied: "Well, dat am de Latin fo' de mess we's in."

MEDICINE TODAY

Current comment on medical progress, reviews of selected books and periodic literature, by contributing editors.

Disease Prevention

DIPHTHERIA History—A new chapter in the history of medicine upon the subject of diphtheria has been outlined by the introduction of toxin-antitoxin immunization. The prompt recognition of its importance by the medical world is a pleasing commentary upon the receptivity of the physician of today in comparison with that of his predecessors of not many generations past. It remains to be seen how long it will take for a unanimous conviction upon the part of scientific men to create a public sentiment which shall demand a universal application of this agency which through its use promises a complete eradication of diphtheria.

Lessons may be drawn from the history of artificial immunization against smallpox. The charming and accomplished Lady Mary Whortley Montague introduced inoculation with mild smallpox to the European world. She wrote from Constantinople about smallpox clinics:

"People send to each other to know if any of their family has a mind to have the smallpox; they make parties for this purpose, and when they are met (commonly fifteen or sixteen together) the old woman comes in with a nutshell of the best sort of smallpox and asks what vein you please to have open. She immediately rips open what you offer to her with a large needle (which gives no more pain than a common scratch) and puts into the vein as much matter as can lie upon the head of her needle, and after that binds up the little wound with a hollow bit of shell, and in this manner opens four or five veins."

After ten years of great opposition inoculation became firmly established in England and was extensively practiced up to 1800. While the death rate from smallpox had been one out of every three or four persons attacked, it was a matter of congratulation that from the inoculated disease the rate of mortality was not greater than one out of fifty and sometimes as low as one out of three hundred (?).

In 1798 Jenner announced his discovery of vaccination and in 1840 Parliament abolished inoculation. Modern sensibilities are shocked to remember that up to the beginning of the Civil War slaves who did not show upon their faces the traces of smallpox brought a much lower price on the auction block than did those who were pock-marked, but today a truly remarkably complacent civilization allowed the following thing to happen: During the six years ending with January 1, 1926, 28,592 cases of smallpox were reported in California. Ninety-four per cent of these individuals had never been vaccinated.

Parallel history of the control of diphtheria is being much more rapidly written than has been that of smallpox.

Quickly following the suggestion of Theobald Smith and the practical test of Von Behring, Parke used toxin-antitoxin immunization in the institutions for children in New York City and thereby put a

stop to the more or less extensive outbreaks of diphtheria which in spite of all precautions had occurred from time to time. This together with the substantial results reported from Auburn, N. Y., and New Haven, Conn., were sufficient to impress upon health authorities a new responsibility and a crystallizing opinion is emphasizing nowadays more and more the protection of children before 18 months of age and at the latest, prior to the time of school attendance.

The leading pediatricians of the larger cities of the Pacific Coast are rapidly immunizing children within their sphere of influence. It remains to be seen how rapidly others in the profession will follow their example.

✓ GEORGE E. EBRIGHT,
San Francisco.

Dermatology and Syphilology

SCHAMBERG and his coworkers using various gold compounds, particularly gold and sodium thiosulphate, have been able to demonstrate a decidedly curative effect, and a prolongation of life, in cases of experimental inoculation tuberculosis in animals.¹ More recently² they have obtained truly excellent results in the treatment of lupus erythematosus by means of intravenous injections of gold and sodium thiosulphate. This dermatosis, most cases of which Schamberg regards as tuberculous, is notoriously resistant to treatment. Therefore a remedy with positive value is very welcome.

H. J. TEMPLETON,
Oakland.

Gastrointestinal Disorders

ACHYLIA—The recent appearance of an article entitled "The Clinical Significance of Achylia Gastrica"³ again stimulates thought regarding a subject frequently lost sight of owing to the fact that examination of the gastric contents is rarely routine for patients with gastrointestinal complaint coming before the average physician.

The first premise in discussing achylia is to definitely decide what constitutes this condition. The conclusion universally adopted is the absolute lack of any hydrochloric acid in the gastric contents at all times. Along with this absence must also be the corresponding lack of ferments. To disclose the absence of acid and ferments in the secretion a definite routine must be followed. Even today many physicians continue to use the old single test of extracting the gastric contents at one hour after the test meal with the large Ewald tube. The absence of hydrochloric acid in this test has caused many diagnoses of achylia when better tests later showed the presence of an abundance of acid. The fractional method of studying the gastric content as developed by Rehfuess⁴ always should be used to the exclusion of the single test. Only by a study of

the stomach content every fifteen minutes from the fasting period through two hours of the digestive period will the true condition be revealed. If no hydrochloric acid is found up to the first hour it may appear during the second hour. Thus a "psychic" secretion due to apprehension in facing the test is replaced by the "chemical" secretion in the second hour.

With findings warranting the diagnosis of achylia gastrica the problem is to determine the cause and its significance. Friedenwald and Morrison find two types of achylia: (1) primary where the total acid is very low, and (2) secondary where the total acid is much higher. In the first type several members of the same family may have achylia and the condition may be found in the first two decades. The second type follows various depleting conditions such as acute fevers, malignant tumors, and anemias. The authors have rarely found a return to normal secretion when true achylia has been demonstrated. Such findings appeared in neurasthenics.

The fact that true achylia has been found in patients who develop pernicious anemia opens a subject for discussion as to its bearing on the anemia state. Such a discussion introduces a large amount of evidence that needs individual consideration.

There are three classes of patients in whom these authors find achylia. Those of the first group have no gastrointestinal symptoms and are apparently in good health; those of the second have a greater or less number of gastric symptoms, while the third group have slight or no gastric symptoms but have marked intestinal disturbances.

The largest number of patients appear in the second group, in whom the condition appears more frequently between the ages of 30 and 60 years and is more common in females than males.

✓ ELDRIDGE J. BEST,
San Francisco.

Ophthalmology

INCIPIENT Cataract—An effective method of checking the progress and removing the opacities in a beginning cataract has been long sought. Various remedies have been used, and good results reported. Green¹ reported 58 per cent and 25 per cent arrested by the use of mercury cyanid injections. Franklin and Cordes² reported 84.3 per cent improved by the use of radium. Harkness³ reports sixteen patients treated with milk injections and was disappointed with the results. He sent out questionnaires to forty teachers of ophthalmology in Class A medical colleges; the great majority of these teachers do not think that any known remedy is of any service except the removal of foci of infection and improvement of the general physical conditions; a few believe that they have had good results from medical treatments including dionin, iodine therapy, locally and internally, with dietetic supervision, the removal of the foci of infec-

¹ Arch. Derm. and Syph., Vol. 14, No. 1, p. 43.

² Arch. Derm. and Syph., Vol. 15, No. 2, p. 119.

³ Friedenwald and Morrison: Annals of Clinical Medicine, 1926, Vol. No. 4, p. 319.

⁴ Rehfuess: J. American Medical Association, 1914, 63, p. 11.

¹ Green, A. S. and L. D.: American Journal of Ophthalmology, 1919, Vol. 2, p. 423.

² Franklin, W. S., and Cordes, F. C.: American Journal of Ophthalmology, 1920, Vol. 3, p. 643.

³ Harkness: American Journal of Ophthalmology, 1925, Vol. 8, No. 2, p. 132.

tion and the improvement of the general metabolism. As Harkness says, the slitlamp will prove of value in studying lenticular changes, and thus enable us to institute treatment before there is loss of vision or changes that we can detect by the ophthalmoscope. It will at least tell us whether we are dealing with a purely senile type or a complicated cataract.

Davis,⁴ who claims to have had twenty-three years of experience with lens antigen, and five years in the treatment of incipient cataract, and with it having treated over 250 patients, in 85 per cent of whom the progress was checked. The lens antigen is most effective in the ordinary subcapsular type, while it has little or no effect on the nuclear type. Diabetic cataracts are favorably influenced. Heart disease, high blood pressure, and diabetics are not contraindications to treatment. Every refraction should be made with the pupils dilated, and a careful examination of the lens made at the same time. Should lens changes be present, treatments should be begun at once.

Anaphylactic shock has been of extremely rare occurrence and of light form since subcutaneous rather than intravenous methods of injections have been used. A sensitization test is the first given, and the reactions following the therapeutic injections are carefully noted during the course of the treatment. When the reaction to the sensitization test is very marked, as noted by the swelling and redness at the site of the injection, the therapeutic injections should be given with special care. Symptoms that the patient is reaching his toleration limit are manifested by uneasiness, restlessness, dull headaches, or dizziness.

Davis prepares his own lens antigen from fresh beef eyes; the protein content of the solution is about 2 per cent. Fifty doses constitute a course of treatment given over a period of two months. It will be interesting to watch the results of reports from other investigators.

WILLIAM A. BOYCE,
Los Angeles.

Pediatrics

SUGGESTIVE Developments in Heliotherapy—Much evidence is being accumulated indicating the value of sunshine in the prevention and treatment of certain conditions.

Alfred Hess¹ and L. R. De Buys,² and others, using rats which are very susceptible to rickets for experimental studies, have shown how calcium is deposited in the bones under the influence of appropriate light rays, thus curing rickets; and that the phosphorous of the blood serum is increased even when the diet was deficient.

In these experiments the rays used were those of the carbon arc lamp, the air-cooled quartz lamp, or

the direct rays of the sun. The two first types, because of ready accessibility at all times and in any surroundings, were most satisfactory. The quartz lamp is considered to be about thirty times as effective as direct sunlight. Pigment in the skin of colored people, or fur as in black rats, caused a slowing up of the action of these rays or even a complete inhibition of their action when the same dosage was used as for unpigmented skins and white-furred animals. De Buys'³ findings that rickets is just as prevalent among colored infants in the South as among the whites, whether in the country districts or the city, and with similar diets, seem to support the experimental evidence.

The action of the sun's rays is, of course, inhibited by dust and smoke in the air, hence the greater tendency to sunburn when on mountain trips, or when on the water in an open boat. To get the best results from heliotherapy there must be very little foreign matter floating in the air. Also window glass, because of the lead it contains, cuts out valuable ultra-violet rays. This explains why the sunshine streaming in through window glass, while it is warming, has no curative or bacterial power other than drying.

That diseases other than rickets are benefited by the sun's rays, is shown by the work of Rollier on bone, glandular and peritoneal tuberculosis.

Hess⁴ has irradiated a nursing woman by means of the quartz light and "brought about a marked increase in the antirachitic potency of her milk." He also suggested that this would prevent the nursing infant from having rickets and at the same time conserve the mother's own calcium and phosphorous. These findings suggest the advisability of letting the nursing mother have as much out-of-door life as possible, particularly in the direct rays of the sun, with the hopes of developing the antirachitic properties of the breast milk. Aiding in the conservation of the calcium and phosphorous by exposure to direct sunlight or artificially produced heliotherapy, may decrease the loss of teeth in the pregnant woman and possibly conserve her store of lime. The thought is enticing and it seems well worth future study.

A. J. SCOTT, JR.,
Los Angeles.

Physical Therapeutics

IT is gratifying to read¹ in the February issue of CALIFORNIA AND WESTERN MEDICINE, A. B. Hirsch's observations on the pioneers in physiotherapy. The physician who has failed to utilize the physical therapeutics when indicated has deprived himself of valuable facilities. When the American Medical Association published the report of the committee on present status of physical therapy after the² establishment of the Council of Physical Ther-

4. Davis: The Year Book, 1926, p. 132.

1. Hess, Alfred F., and Unger, L. J.: Interpretation of Seasonal Variation of Rickets, Journal American Medical Association, lxxvii 39, July 2, 1921.

2. De Buys, L. R.: Rickets, Illinois Medical Journal, Vol. 47, No. 6, p. 413, June, 1925. (Note extensive bibliography.)

3. De Buys, L. R.: Trans. American Pediatric Society, Vol. xxxiii, 1921, p. 160. (Discussion.)

4. Hess, Alfred F.; Weinstock, Mildred; Sherman, Elizabeth: Antirachitic Properties Developed in Human Milk by Irradiating the Mother, Journal American Medical Association, 88, 24, January 1, 1927.

1. California and Western Medicine, 2, 1927, p. 242.

2. J. A. M. A., 10, 24, 1925.

apy, convincing evidence concerning these physical agents became available to the physician whose ethical ideas heretofore had limited him to drug therapy. For the benefit of those unfamiliar with the progress in the scientific and ethical interpretation placed on these methods in medical practice, the following is quoted.³ "Physical therapy is a term employed to define the treatment of disease by various nonmedical means." It comprises the use of the physical, chemical and other properties of heat, light, water, electricity, massage, and exercise. There are certain definite indications for the use of some one or a combination of several of these physical agencies in the treatment of diseases, but to depend on these agencies solely, to use them in lieu of better proved methods, or to employ them without having first thoroughly studied the patient from the standpoint of diagnosis, is harmful practice. Some physical agencies may be used on the theory that "they will do no harm and may do some good." The psychologic element in their use impresses the patients, usually beneficially but occasionally to his detriment. The use of a certain method may become a habit with the patient, the physician or the technical assistant, so that the course of treatment is prolonged unduly. Again, manufacturers' agents—salesmen absolutely untrained in medical science—visit physicians, extolling the virtues of special physical apparatus, making unfounded claims as to curative values, and emphasizing the "money-making powers of these methods of treatment." In the above statement are facts, not fancies for consideration, but a practical knowledge must be acquired if the employment of physical agents are to be beneficially prescribed. Adequate hospital service must include a properly equipped physical therapy department with a physician in charge just as it maintains its clinical laboratories and roentgenological department. In the latter departments the directors interpret the medical findings largely for diagnostic purposes, while the director of physiotherapy must advise and supervise the application of the various physical procedures in a scientific and rational manner. Physical treatments must be measured by their effect. Physicians and patients have been discouraged and disappointed by poorly advised or administered physical therapy treatment. Norman Titus⁴ draws "attention to the fact that by far the greatest part of physical therapy is medical common sense. An understanding of the pathology and of reaction desired in the patient can be called the common sense part. Three per cent of physical therapy is technical knowledge of whether the modalities can be applied effectively, conveniently, and with safety to the part to be treated and how those modalities will work when brought into play. Two per cent of physical therapy is the actual knowledge of the technique. Therefore, the common sense part of the subject is 95 per cent." With the growing recognition of the part physical therapy plays in general therapeutics and a better understanding of efficient administration of the various physical agents, more extended use is being made of them by physicians.

HARRY LESLIE LANGNECKER,
San Francisco.

3. J. A. M. A., 10, 16, 1926.

4. American Journal of Surgery, July, 1926, p. 15.

Proctology

TREATMENT of Rectal Prolapse of Infants and Children—To the parent, rectal prolapse in infants and young children is terrifying; to the physician it presents a situation calling for utmost ingenuity. Replacement is not usually difficult. Temporary retention with an adhesive strap in front of the anus gives temporary relief.

More permanent success demands correction of such irritative conditions as diarrhea, proctitis, or polypus; also the prevention of undue straining at stool, due to constipation. Defecation had best be in a recumbent position and often manual support of the perineum is necessary.

If this régime is faithfully carried out for a considerable period the tonus of the anal sphincter returns and the prolapsing tendency ceases. As Heald¹ has stated, however, such treatment is irksome, disagreeable, and often impossible. Despite faithful and intelligent care the child, by crying and straining, may cause a recurrence of the prolapse, thereby negating previous efforts. In fact in most cases of considerable standing conservative methods are foredoomed to failure.

Heald¹ suggests a simple operative procedure consisting of replacing the prolapse in the etherized patient and then, through a speculum, after disinfecting the mucosa with mercurochrome, introducing two coarse silkworm gut sutures from within outward. The upper suture comes out with free ends on a level with and on each side of the sacrococcygeal notch. The second is one-half inch lower. They are tied over a compress and removed in two weeks.

The patient is in bed for three or four days, and bowel movements are prevented by an opiate and are later restored by an olive-oil injection. The results have been excellent both as to operative morbidity and final cures.

This method seems to be an independently evolved modification of the technique of Ekehorn,² further described by Tolken,³ the end results of which have been discussed by Petren.⁴ These Scandinavians use a single suture of heavy silk drawn out on each side of the lower end of the sacrum by a special mounted needle introduced into the rectum from the skin, under guidance of a finger inserted through the anus. The needle, being brought out through the anus, is threaded and withdrawn and the act repeated on the other side.

I have had eminent satisfaction with Ekehorn's method. It has not been necessary or possible to keep these children from brisk activity following the operation. No effort is made to prevent regular bowel action. There is always a slight fever. The results have been perfect.

This method of suspension is worthy of consideration in all young patients with severe or recurring prolapse and particularly if means are not at hand for faithful adherence to nonoperative treatment.

GORDON F. HELSLEY,
San Francisco.

1. Heald, C. L.: Surgery, Gynecology, and Obstetrics, Vol. 42, June, 1926.

2. Ekehorn, G.: Arch. klin. Chir., Vol. 89, 1909.

3. Tolken, R.: Deutsche med. Wochenschr., 1915, No. 15.

4. Petren, G.: Acta Chir. Scand., Vol. 59, 1925.

Tuberculosis

IS tuberculosis in the adult usually the result of infection in childhood or is it caused by exogenous reinfection in later life? This is a question of more than academic interest, for upon its answer depends the solution of many problems which the physician must meet.

At the fifth conference of the International Union Against Tuberculosis, Washington, September 30, 1926, Lawrason Brown¹ stated: "There are three camps of those who consider this problem: 1. Those who believe that all tuberculous infection arises from childhood infection. 2. Those who believe that most cases in adult life are due to reinfection from without. 3. Those who hold that both endogenous and exogenous reinfection can occur."

It is well known that all children become infected with tubercle bacilli before the fifteenth year, the fortunate ones picking up a few germs here and there and very likely acquiring an immunity by this crude form of vaccination. Those who are in close association with a tuberculous relative may receive massive doses of the infection, and if they do not succumb are likely to develop the disease in later life.

If this development is due only to endogenous reinfection and if adult infection is practically impossible, the problem of the war against tuberculosis becomes greatly simplified. Protect children from close association with tuberculous individuals, allowing them only the casual contacts which are inevitable, and we shall in time become a race of immunes.

If adult reinfection from the outside plays a large part in adult tuberculosis it is difficult to see how the disease ever can be eradicated.

The necessity of isolating all tuberculous patients; the disastrous phthisiophobia that would result and the inevitable concealment of many patients would make this task impossible of accomplishment. Unfortunately animal experimentation offers no answer to this question. Tuberculosis is a lifelong disease and a lifelong problem greatly modified by human social conditions. No animal exactly compares to man in his physical reactions, and his social conditions of occupation, environment, and exposure to intercurrent infections cannot be duplicated. The careful correlation of our clinical observations and the application thereto of a balanced and critical judgment offer the only hope of a decision.

The rarity of marital tuberculosis is the most convincing observation in favor of endogenous reinfection. Every physician knows how rarely husband and wife are both affected. Statistics place the figure at 3 or 4 per cent.

If close association of the average adult with a tuberculous consort continued over many years does not result in infection it is difficult to see what argument can be brought up in favor of adult infection

and against the conviction that the solution of the tuberculosis problem will be found in the protection of the child.

✓ LEWIS SAYRE MACE,
San Francisco.

Tuberculosis

(Continued from March issue)

IN the opinion of Krause¹ tissue allergy is a defensive and conservative process, the prompt inflammatory response serving to prevent the spreading of tubercle bacilli in the body as occurs in the nonallergic animal. This prompt response to the presence of the tubercle bacilli after infection has been once accomplished is accompanied by systemic symptoms of acute and even dangerous illness.

From the eruption of a focus or the mobilization of variable numbers of bacilli from foci there would result unrestrained dissemination of infection but for the allergic response. The inflammation which accompanies it tends also to stimulate the powers of nodular tubercle to form fibrous tissue, thus preparing the way for the slow (chronic) tubercle formation after the acute stage is past.

Tuberculous formations may therefore be looked upon as being composites of the effects of lipoids and proteins of the tubercle bacilli, and representing a mixture, in varying proportions, of the effect of nodular tubercle formation and allergic inflammatory reaction. The disease tuberculosis is based upon the extension and progression and repetition of tuberculous formations, produced because of the presence of living bacilli. Destructive processes, such as necrosis and cavitation, may involve the foci when sufficient concentration of the protein released by the bacilli living and disintegrating within it is reached.

Larger nodular tubercles are built up mainly from the coalescence of smaller ones. Necrosis of tubercle is a result of allergy—a sequel of the inflammatory reaction. It begins centrally and extends outward. Fibrosis is brought about through the conversion of epithelioid cells of nodular tubercle into fibroblastic types. It is greatly enhanced by the allergic inflammatory reaction as the latter subsides. It begins at the periphery and extends inward.

The ultimate issue of every tuberculous focus turns upon the balance struck between central necrosis and peripheral fibrosis.

From the point of view of the bodily economy the most important single element of tuberculous processes is the integrity and competence of their fibrous investments.

Our therapy today is aimed at the fibrous investment of tubercle, striving to strengthen it. Other lines of exploration are suggested as possibly leading to further therapeutic aids.

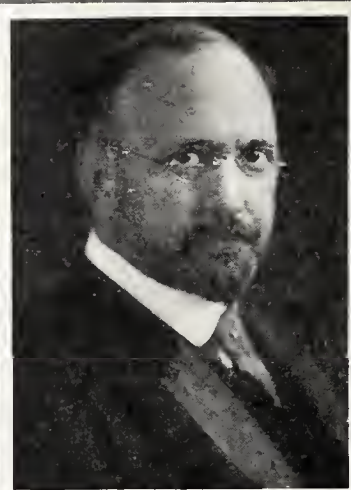
CHARLES C. BROWNING,
Los Angeles.

1. Brown, Lawrason: Exogenous Reinfection in Pulmonary Tuberculosis, The American Review of Tuberculosis, January, 1927, p. 40.

1. Allen K. Krause, Associate Professor of Medicine and Director Kenneth Dows Laboratories, Johns Hopkins University; Editor National Review of Tuberculosis; Associate Editor Journal of the Outdoor Life (Address on the Anatomical Structure of Tubercle from Histogenesis to Cavity. Read before the Fifth Conference of the International Union Against Tuberculosis at Washington, October 1, 1926).



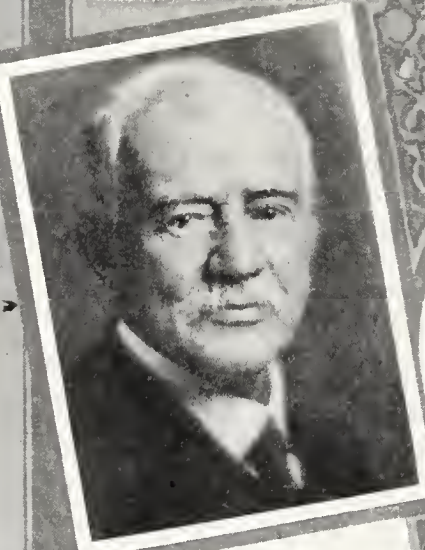
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D. C. Balfour
Rochester, Minn.



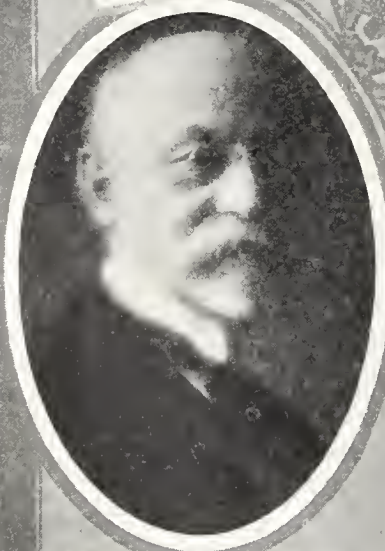
Howard Kelly
Baltimore



Hubert Work
Secretary of the Interior



Hugh S. Cumming
Surgeon-General
U. S. Public Health Service



James B. Herrick
Chicago



Stuart McGuire
Richmond, Va.



H. J. Gerstenberger
Cleveland, Ohio

INVITED SPEAKERS



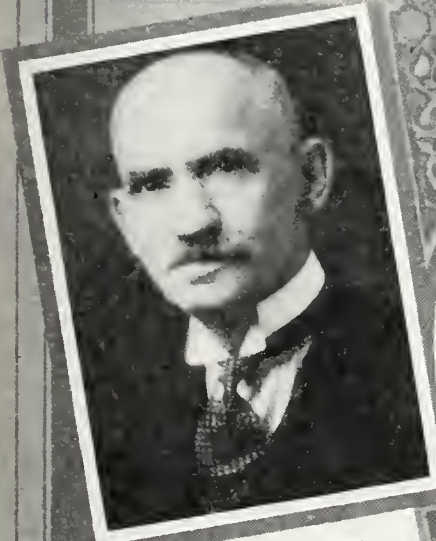
Albert Soiland, Los Angeles
Chairman Committee on
Convention Number



Henry Snure, Los Angeles
Chairman Committee on
Motion Picture Exhibit



William R. Malony
Chairman Committee on
Commercial Exhibits



George N. Middleton
Salt Lake City



William Duffield, Los Angeles
General Chairman
and Publicity



Charles G. Sutherland
Rochester, Minn.



Wayland A. Morrison
Los Angeles, Chairman
Committee on Finance



Clarence G. Toland
Los Angeles, Chairman
Committee on Golf



C. E. Phillips, Los Angeles
Chairman Committee on Daily
Convention Bulletin

COMMITTEE OF ARRANGEMENTS AND INVITED SPEAKERS



W. H. Bingaman
Salinas
Councilor



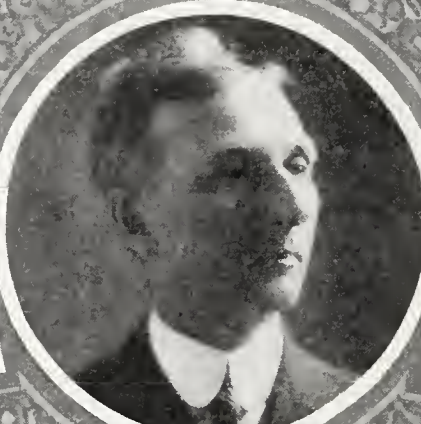
George H. Kress
Los Angeles
Councilor



Oliver D. Hamlin
Oakland
Chairman of Council



Joseph Catton
San Francisco
Councilor



Percy T. Phillips
Santa Cruz
President-Elect



Robert V. Day
Los Angeles
Vice-President



Lyell Kinney
San Diego
Councilor



Henry S. Rogers
Petaluma
Councilor



Harlan Shoemaker
Los Angeles
Councilor



W. B. Coffey
San Francisco
Councilor



W. H. Kiger
Los Angeles
Councilor



John Hunt Shephard
San Jose
Councilor



Emma W. Pope
San Francisco
Secretary



Morton R. Gibbons
San Francisco
Acting Chairman Council



Robert A. Peers
Colfax
Councilor



Junius B. Harris
Sacramento
Councilor



C. L. Curtiss
Redlands
Councilor



Fred R. DeLappe
Modesto
Councilor

OFFICERS CALIFORNIA MEDICAL ASSOCIATION



E. Spence De Puy
Oakland
Secretary, Urology

John W. Crossman
Los Angeles
Chairman, Radiology

Clarence E. Rees, San Diego
Chairman, Industrial Medicine
and Surgery

Andrew J. Thornton
San Diego
Chairman, Pediatrics

J. Marion Read
San Francisco
Chairman, General Medicine

John D. Gillis, Los Angeles
Chairman, Industrial
Medicine and Surgery

Harry E. Alderson
San Francisco, Chairman,
Dermatology and Syphilology

Charles E. Schoff, Sacramento
Secretary, Dermatology and
Syphilology

John H. Breyer
Pasadena
Secretary, General Surgery

SECTION OFFICERS



Simon Jesberg, Los Angeles
Secretary
Eye, Ear, Nose, and Throat



Henry N. Shaw, Los Angeles
Secretary
Obstetrics and Gynecology



Francis S. Smyth, San Francisco
Secretary
Pediatrics



Lyle G. McNeile, Los Angeles
Chairman
Obstetrics and Gynecology



Fred R. Fairchild, Woodland
Chairman
General Surgery



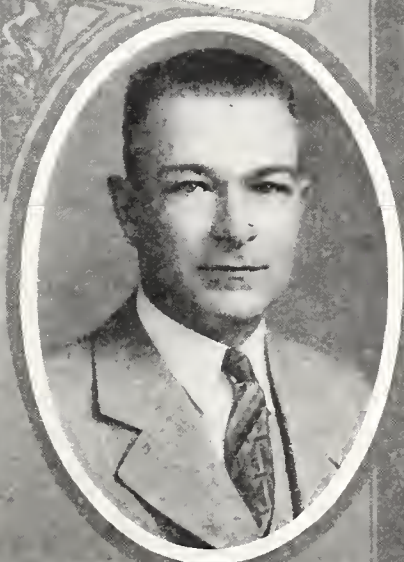
Percival Dolman, San Francisco
Chairman
Eye, Ear, Nose and Throat



James F. Churchill, San Diego
Secretary
General Medicine



Nathaniel H. Brush
Santa Barbara, Chairman
Neuropsychiatry



Robert F. Kile, San Francisco
Secretary
Radiology

SECTION OFFICERS

Program

THE FIFTY-SIXTH ANNUAL SESSION of the CALIFORNIA MEDICAL ASSOCIATION

TO BE HELD
at
LOS ANGELES,
CALIFORNIA



APRIL
25, 26, 27, 28,
1927

LOS ANGELES BILTMORE
Headquarters for Meeting of California Medical Association

Officers and Committees, 1927

WILLIAM T. McARTHUR, Los Angeles, President
PERCY T. PHILLIPS, Santa Cruz, President-Elect
ROBERT V. DAY, Los Angeles, Vice-President
EMMA W. POPE, San Francisco, Secretary
HARTLEY F. PEART, San Francisco, General Counsel
HUBERT T. MORROW, Los Angeles, Assistant General Counsel
WILLIAM H. BARRY, Superintendent of Publications

COUNCILORS

First District
Lyell C. Kinney, San Diego (1927)
San Diego, Riverside, San Bernardino, and Imperial Counties

Second District
William H. Kiger, Los Angeles (1929)
Los Angeles, Santa Barbara, Ventura, and Orange Counties

Third District
William H. Bingaman, Salinas (1929)
San Luis Obispo and Monterey Counties

Fourth District
Fred R. DeLappe, Modesto (1928)
Fresno, Kern, Kings, Tuolumne, Merced, Mariposa, Madera, Tulare, and Stanislaus Counties

Fifth District
John Hunt Shephard, San Jose (1929)
Santa Clara, San Mateo, San Benito, and Santa Cruz Counties

Sixth District
Walter B. Coffey, San Francisco (1929)
San Francisco County

Seventh District
Oliver D. Hamlin, Oakland, Chairman (1929)
Alameda, Contra Costa, San Joaquin, and Calaveras Counties

Eighth District
Junius B. Harris, Sacramento (1928)
Sacramento, Amador, El Dorado, Alpine, Placer, Nevada, Yuba, Sutter, Sierra, Yolo, Butte, Plumas, Lassen, Mono, Inyo, Glenn, Colusa, Tehama, Shasta, Modoc, and Siskiyou Counties

Ninth District
Henry S. Rogers, Petaluma (1929)
Marin, Sonoma, Lake, Mendocino, Solano, Napa, Del Norte, Humboldt, and Trinity Counties

Councilors at Large
Robert Peers, Colfax (1928)
Joseph H. Catton, San Francisco (1929)
George H. Kress, Los Angeles (1929)
Harlan Shoemaker, Los Angeles (1929)
Morton R. Gibbons, San Francisco (1927)
Charles L. Curtiss, Redlands (1929)

DELEGATES AND ALTERNATES TO A. M. A.

| Delegates | | Alternates |
|----------------|--------|---------------------|
| Victor Vecki | (1928) | William E. Stevens |
| San Francisco | | San Francisco |
| Percy T. Magan | (1928) | Charles D. Lockwood |
| Los Angeles | | Pasadena |
| Dudley Smith | (1927) | Walter B. Coffey |
| Oakland | | San Francisco |
| Albert Soiland | (1927) | C. P. Thomas, |
| Los Angeles | | Los Angeles |
| Robert Pollock | (1927) | Martha Welpton, |
| San Diego | | San Diego |

COMMITTEES

Executive Committee
Morton R. Gibbons, Chairman
William T. McArthur
Robert V. Day
Emma W. Pope
O. D. Hamlin
Percy T. Phillips
George H. Kress

Committee on Scientific Program
Emma W. Pope, Chairman
Lemuel P. Adams (1929)
Oakland
F. M. Pottenger (1927)
Monrovia
Joseph Catton (1928)
San Francisco
J. Marion Read (1928)
San Francisco

Auditing Committee
Morton R. Gibbons, Chairman
William Duffield
Walter B. Coffey
George H. Kress

Publicity for 1927 Meeting
William Duffield
George H. Kress

Committee on Arrangements
William Duffield, Chairman
George H. Kress
Harlan Shoemaker
William H. Kiger
Wayland Morrison
Albert Soiland

Subcommittees
Finance—Wayland Morrison
Halls and Banquet Room—William H. Kiger
Commercial Exhibit—W. R. Molony, Chairman; James R. Conerty, Harry Martin
Entertainment—George H. Kress
Entertainment of Visiting Ladies—Mrs. William T. McArthur
Golf—C. G. Toland
Scientific Exhibit—William H. Kiger

Committee on Special Issue of "California and Western Medicine"
Harlan Shoemaker
George H. Kress
W. T. McArthur
Harry Martin
Albert Soiland

House of Delegates

FIRST MEETING

Music Room, Hotel Biltmore, April 25, at 8 p. m.
Open to Members of the California Medical Association

ORDER OF BUSINESS

- 1. Call to order.
- 2. Roll call.
- 3. Report of President William T. McArthur.
- 4. Appointment of the Reference Committee by the President.
- 5. Report of the Council, Morton R. Gibbons, acting chairman (presented before the General Sessions).
- 6. Report of the Committee on Scientific Program, Emma W. Pope, chairman.
- 7. Report of the Auditing Committee, Morton R. Gibbons, chairman.
- 8. Report of Secretary Emma W. Pope.
- 9. Report of the late Editor, W. E. Musgrave.
- 10. Report of the General Counsel, Hartley F. Peart.
- 11. Unfinished business.
- 12. New business.
- 13. Reading and adoption of minutes.
- Adjournment.

HOUSE OF DELEGATES MEMBERSHIP

William T. McArthur, Los Angeles, President.
Percy T. Phillips, Santa Cruz, President-Elect.
Robert V. Day, Los Angeles, Vice-President.

COUNCILORS

- Lyell C. Kinney, San Diego (1927).....First District
- William H. Kiger, Los Angeles (1929).....Second District
- William H. Bingaman, Salinas (1929).....Third District
- Fred R. DeLappe, Modesto (1928).....Fourth District
- John Hunt Shephard, San Jose (1929).....Fifth District
- Walter B. Coffey, San Francisco (1929).....Sixth District
- Oliver D. Hamlin, Oakland, Chairman (1929).....Seventh District
- Junius B. Harris, Sacramento (1928).....Eighth District
- Henry S. Rogers, Petaluma (1929).....Ninth District
- Robert Peers, Colfax (1928).....At Large
- Joseph H. Catton, San Francisco (1929).....At Large
- George H. Kress, Los Angeles (1929).....At Large
- Harlan Shoemaker, Los Angeles (1929).....At Large
- Morton R. Gibbons, San Francisco (1927).....At Large
- Charles L. Curtiss, Redlands (1929).....At Large

DELEGATES ALTERNATES

- Alameda County (8)**
Daniel Crosby C. L. McVey
J. K. Hamilton George McClure
S. V. Irwin Henning Koford
H. B. Mehrmann R. T. Sutherland
C. H. Miller Frank Baxter
Gertrude Moore J. W. Sherrick
D. N. Richards W. B. Allen
Edward N. Ewer
- Butte County (1)**
Dan H. Moulton Edward E. Baumeister
- Contra Costa County (1)**
J. M. McCullough L. St. John Hely
- Fresno County (2)**
Thomas Madden W. G. Millholland
Harry Craycroft A. E. Anderson
- Glenn County (1)**
George McKinnon John N. Chain
- Humboldt County (1)**
Imperial County (1)
Kern County (1)
F. A. Hamlin J. K. Smith
- Lassen-Plumas County (1)**
J. F. Davis S. M. Sproat
- Los Angeles County (30)**
W. Max Fearon A. E. Belt
Michael Creamer Walter F. Wessels
Lyle McNeile E. C. Fishbaugh
William Duffield R. S. Cummings
John V. Barrow Charles Salisbury
F. B. Settle W. H. Bucher
C. G. Toland T. J. Orbison
Albert Soiland William H. Daniel
Joseph M. King Walter A. Bayley
W. W. Hutchinson Phil Boller
Granville MacGowan J. C. Horton
L. D. Remington H. M. Voorhees
C. E. Phillips C. F. Sebastian
George L. Cole E. G. Goodrich
A. C. Germann J. N. Van Meter
A. B. Cooke William Bowman

SECOND MEETING

Music Room, Hotel Biltmore, April 27, at 8 p. m.
Open to Members of the California Medical Association

ORDER OF BUSINESS

- 1. Call to order.
- 2. Roll call.
- 3. Announcement of the place of meeting, 1928.
- 4. Election of officers:
 - (a) Election of president-elect.
 - (b) Election of vice-president.
 - (c) Election of councilors.
First District—Incumbent, Lyell C. Kinney, San Diego (1927).
Eighth District—Incumbent, Junius B. Harris (1928).
Councilors at Large—Incumbent, Morton R. Gibbons, San Francisco (1927).
 - (d) Election of member on Program Committee (four years)—Incumbent, F. M. Pottenger, Monrovia (1927).
 - (e) Election of Delegates and Alternates to A. M. A.—Incumbents:
- 5. Report of Reference Committee.
- 6. Presentation of president.
- 7. Presentation of president-elect.
- 8. Reading and adoption of minutes.
- Adjournment.

| Delegates | | Alternates |
|----------------|--------|------------------|
| Dudley Smith | (1927) | Walter B. Coffey |
| Oakland | | San Francisco |
| Albert Soiland | (1927) | C. P. Thomas |
| Los Angeles | | Los Angeles |
| Robert Pollock | (1927) | Martha Welpton |
| San Diego | | San Diego |

DELEGATES ALTERNATES

- Los Angeles County (30)—Continued**
Russell Sands Roy Thomas
W. H. Gilbert Henry Shaw
F. S. Dillingham William Molony
Edward W. Hayes W. J. McKenna
Philip Stephens Sterling Pierce
Leroy B. Sherry C. H. Weaver
Fitch C. E. Mattison John W. Crossan
William A. Swim Paul Ferrier
John H. Breyer Raymond G. Taylor
James F. Percy Karl Dieterle
Elmer E. Kelly J. G. Lynch
Foster K. Collins A. E. Gallant
Eleanor Seymour Sven Lokrantz
Irwin C. Sutton Gerald F. Smith
- Marin County (1)**
G. M. Landrock J. H. Kuser
- Mendocino County (1)**
Raymond A. Babcock Lew K. Van Allen
- Merced County (1)**
A. S. Parker W. E. Lilley
- Monterey County (1)**
Wylie Reeves Garth Parker
- Napa County (1)**
W. Oliver Moore George I. Dawson
- Orange County (2)**
R. A. Cushman Dexter R. Ball
Harry E. Zaiser J. I. Clark
- Placer County (1)**
H. N. Miner R. H. Eveleth
- Riverside County (1)**
Thomas A. Card W. B. Wells
- Sacramento County (2)**
Frank Reardon J. Roy Jones
Charles B. Jones George Foster
- San Benito County (1)**
R. W. O'Bannon J. M. O'Donnell
- San Bernardino County (2)**
Gayle G. Moseley R. S. Gibbs
A. N. Donaldson F. H. Folkins
- San Diego County (4)**
John C. Yates T. O. Burger
George B. Worthington E. F. Chamberlain
Mott H. Arnold D. R. Higbee
Martha Welpton Lillian B. Mahan

| DELEGATES | ALTERNATES |
|----------------------------------|---------------------|
| San Francisco County (16) | |
| Edmund Butler | Thomas E. Bailly |
| William E. Chamberlain | Gilbert M. Barrett |
| William R. P. Clark | LeRoy Brooks |
| Walter B. Coffey | John F. Cowan |
| Walter Scott Franklin | Randolph G. Flood |
| John H. Graves | Henry Harris |
| T. Henshaw Kelly | Samuel H. Hurwitz |
| Eugene S. Kilgore | Irving S. Ingber |
| William Palmer Lucas | Alexander S. Keenan |
| Alfred C. Reed | Elizabeth Keys |
| Fred. H. Rodenbaugh | Hans Lissner |
| H. A. L. Ryfkogel | Harvard McNaught |
| Karl L. Schaupp | A. S. Musante |
| I. W. Thorne | Robert R. Newell |
| Victor G. Veckl | Otto Westerfeld |
| John Homer Woolsey | Lloyd Bryan |
| San Joaquin County (2) | |
| Barton J. Powell | B. F. Walker |
| R. T. McGurk | Margaret H. Smyth |
| San Luis Obispo (1) | |
| Gifford L. Sobey | C. J. Teass |
| San Mateo County (1) | |
| W. O. Calloway | |
| Santa Barbara County (1) | |
| Henry Ullmann | F. R. Nuzum |

| DELEGATES | ALTERNATES |
|-------------------------------|------------------|
| Santa Clara County (2) | |
| George L. Barry | Edwin M. Miller |
| Peter A. Jordan | Alson A. Shufelt |
| Santa Cruz County (1) | |
| Ambrose F. Cowden | Jessie C. Farmer |
| Shasta County (1) | |
| Ferdinand Stabel | Clarence E. Reed |
| Siskiyou County (1) | |
| S. S. Kalman | |
| Solano County (1) | |
| John W. Green | P. B. Fry |
| Sonoma County (1) | |
| J. W. Seawell | R. M. Bonar |
| Stanislaus County (1) | |
| C. E. Pearson | E. F. Reamer |
| Tehama County (1) | |
| F. J. Bailey | J. A. Owen |
| Tulare County (1) | |
| I. H. Betts | Elmo R. Zumwalt |
| Tuolumne County (1) | |
| George C. Wrigley | William L. Hood |
| Ventura County (1) | |
| J. Bianchi | B. E. Merrill |
| Yolo-Colusa County (1) | |
| Fred R. Fairchild | W. E. Bates |
| Yuba-Sutter County (1) | |

General Information

Registration and Information—The registration and information desk is located in the Galleria, Los Angeles Biltmore. All persons attending the convention, whether members or not, are requested to register immediately on arrival. Beginning Sunday, April 24, registration secretaries will be on duty daily from 9 a. m. until 5 p. m.

Guests and Visitors—All guests and visitors are requested to register. All General Sessions and scientific meetings are open to visitors and guests.

Badges—Four kinds of badges will be issued by the registration bureau.

Members—Only active, associate, affiliate or honorary members of the California Medical Association will be issued the usual membership badge.

Guest—A special badge will be issued to all fraternal delegates, visiting physicians, physiotherapists, medical social workers, nurses, and other technical specialists who are attending the meetings upon official invitation of the Association.

Delegates and Alternates—The usual official badge is provided for this purpose, and will be issued only to persons authorized to wear it.

Councillors—An official badge is provided for all officers and members of the Council.

Membership Cards—Every member in good standing in the California Medical Association has been issued an official membership card for 1927.

Suggestions and Constructive Criticism—The officers and committees have tried to do everything possible to make the meeting a success. Suggestions and constructive criticism calculated to make future meetings more useful will be welcomed by any of the officers. Complaints of whatever character should be made to the registration desk, where they will receive attention.

Social Program—The social program is in the hands of the Entertainment Committee, and is published on the back of this program.

Press Representatives—Accredited press representatives are welcome, and they will be accorded every possible courtesy.

Publicity—All publicity is in the hands of the Publicity Committee. It is requested that all persons having matter of "news" value report it to this committee. It is particularly requested that all "news" about any phase of the convention be given out through the official committee, and in no other way.

Exhibits—Only advertisers in "California and Western Medicine" are permitted to exhibit at the annual meeting.

Rules Regarding Papers and Discussions at the State Meeting—Upon recommendation of the Executive Committee, the following rules regarding papers have been adopted by the Council:

1. The maximum time that may be consumed by any paper is fifteen minutes, provided that not to exceed ten minutes' latitude may be allowed invited guests at the discretion of the presiding chairman.

2. Motions from the floor to extend the time of an author may not be entertained by the presiding officer.

3. The maximum time permitted any individual discussant on any paper is four minutes. This also applies to the author in closing his discussion. No discussant may speak more than once upon the same subject.

4. No paper will be accepted by the General Program Committee nor by section program committees unless accompanied by a synopsis of not to exceed fifty words.

5. Papers shall not be "read by title."

6. A copy of each and every paper presented at the state meeting must be in the hands of the chairman or secretary of the section or in the hands of the general secretary before the paper is presented.

7. No paper shall be read by any member of the Association at any annual meeting until the same has been submitted and approved by the Program Committee, and the Program Committee is authorized, if it so desires, in

determining whether any paper shall be worthy of presentation, to secure the opinion of any member or members of the Association.

8. All papers read at the annual meeting shall be published in full in "California and Western Medicine" as soon after the meeting as space will permit, or at the option of the author, an abstract of the paper of about one column in length shall be published as soon as possible after the meeting with reprints in full of the entire paper (the cost of setting up type for the reprint to be borne by the Association, and all other costs to be borne by the author).

9. No member may present more than one paper at any one state meeting. A member may, however, be a collaborator on more than one paper if these papers are presented by different authors.

10. Failure on the part of an author to present a paper precludes acceptance of future papers from such author for a period of two years, unless the author explains, to the satisfaction of the Executive Committee, his inability to fulfill his obligation.

HOUSE OF DELEGATES CHAPTER III

Section 1. The House of Delegates shall be the legislative body of the Association, and shall consist of the officers of the Association, and the regularly elected and properly certified delegates or alternates representing their several county societies.

(No delegate or alternate whose name has not been certificated in writing as such by his county unit through the president and secretary, and filed in the office of the state secretary at least fifteen days subsequent to the first of March, shall be entitled to a seat in the House of Delegates. The state secretary shall notify each delegate of his election and forward certificate credentials with notice of councillor's rulings governing election and penalty for nonattendance; and no delegate absent without prior notification to his county secretary or secretary of this Association shall be eligible to a seat in the House of Delegates the following year; and it shall be the duty of the secretary to mail a list of all absent delegates to the proper county units. Proposed amendment to be acted upon H. D. 1927.)

Sec. 2. Each county society shall be entitled to send to the House of Delegates each year one delegate and one corresponding alternate for every fifty members as of the first day of October of the preceding year, and one for each major fraction thereof, provided that each county society which has made its annual report and paid its assessment, as provided in this Constitution and By-Laws, shall be entitled to at least one delegate and one alternate.

Sec. 3. Twenty-five delegates shall constitute a quorum.

Sec. 4. Delegates and alternates shall be elected for a term of two years, and those societies entitled to more than one representative shall arrange such election so that one-half of their delegates and alternates, as near as may be, shall be elected each year.

Sec. 5. The House of Delegates shall approve all memorials and resolutions of whatever character issued in the name of the Association before the same shall become effective.

Sec. 6. The sessions of the House of Delegates shall be open to all members of the Association.

Sec. 7. The House of Delegates shall have authority to appoint committees for special purposes from among members of the Association who are not members of the House of Delegates. Such committees shall report to the House of Delegates, and may present and participate in the discussion of their reports.

Sec. 8. The House of Delegates shall elect representatives to the House of Delegates of the American Medical Association in accordance with the Constitution and By-Laws of that body.

General Meetings

FIRST GENERAL SESSION

Ballroom, Biltmore Hotel, Los Angeles
Monday, April 25, 10 a. m.

WILLIAM T. McARTHUR, M. D., President
Pacific Mutual Building, Los Angeles

1. Invocation—Rev. Hugh K. Walker, Pastor First Presbyterian Church, Los Angeles.
2. Address of Welcome—Hon. George E. Cryer, Mayor of Los Angeles.
3. President's Annual Address—William T. McArthur, M. D., Pacific Mutual Building, Los Angeles.
4. Address of President-Elect—Percy T. Phillips, M. D., Santa Cruz.
5. Announcement Regarding Permanent Quarters—President William T. McArthur, M. D.
6. Report of Arrangements Committee—William Duffield, M. D., Auditorium Building, Los Angeles.

SECOND GENERAL SESSION

Ballroom, Biltmore Hotel, Los Angeles
Tuesday, April 26, 10 a. m.
Pacific Mutual Building, Los Angeles

1. The General Practitioner—James B. Herrick, M. D., Chicago, Illinois.

2. The Profit and Loss Account of Modern Medicine—Stuart McGuire, M. D., Richmond, Virginia.
3. Annual Report of the Council—O. D. Hamlin, M. D., Federal Realty Building, Oakland.

THIRD GENERAL SESSION

Auditorium, Pacific Mutual Building, Los Angeles
Tuesday Evening, April 26, 8 p. m.

1. Public Health Address—William A. Evans, M. D., Chicago, Illinois.

FOURTH GENERAL SESSION

Ballroom, Biltmore Hotel, Los Angeles
Wednesday, April 27, 10 a. m.
Pacific Mutual Building, Los Angeles

1. Retrospect of Gynecology—Howard A. Kelly, M. D., Baltimore, Maryland.
2. Address—W. W. Campbell, President University of California, Berkeley.

FIFTH GENERAL SESSION

Ballroom, Biltmore Hotel, Los Angeles
Thursday, April 28, 2 p. m.

1. Medicine in the Department of the Interior—Hon. Hubert Work, Secretary of the Interior.
2. Address—Surgeon-General Hugh Cumming.

Diagram of Meetings

| | | Ball Room | Music Room | Pacific Mutual | Room 3 | Room 7 | Audi-torium | Audi-torium |
|------------------------|----------|--|------------------|---------------------------------|------------------|----------------------------|------------------|-------------|
| Monday April 25 | 10-12:30 | First General Session—Presidential Addresses and Committee Reports—Ballroom | | | | | | |
| | 2:30 | Obstetrics | General Medicine | General Surgery | Derma-tology | Eye, Ear, Nose, and Throat | Urology | Radiology |
| | 8-10 | First House of Delegates. Music Room. All C. M. A. members invited | | | | | | |
| Tuesday April 26 | 10-12:30 | Second General Session—Invited Guests—Ballroom | | | | | | |
| | 2:30-5 | Gynecology | General Medicine | General Surgery | Anesthe-siology | Eye, Ear, Nose, and Throat | Urology | Radiology |
| | 8-10 | Third Public Meeting—Philharmonic Auditorium. William A. Evans, M. D., Speaker | | | | | | |
| Wednes-day April 27 | 10-12:30 | Fourth General Session—Invited Guests—Ballroom | | | | | | |
| | 2:30-5 | Anesthe-siology | Pediatrics | Industrial Medicine and Surgery | Derma-tology | Eye, Ear, Nose, and Throat | Neuropsy-chiatry | Radiology |
| | 8-10 | Second House of Delegates—Music Room. All C. M. A. members invited | | | | | | |
| Thursday April 28 | 10-12:30 | | General Medicine | General Surgery | | | | |
| | 2:00 | Fifth General Session—Invited Guests—Ballroom | | | | | | |
| | 2:30-5 | | | | Neuropsy-chiatry | Pathology | Urology | |
| | | President's Dinner and Dance—Thursday Evening—Ballroom | | | | | | |

Outline of Meetings, Dinners and Luncheons

Meetings of the House of Delegates—Monday and Wednesday evenings, April 25 and 27, at 8 p. m. in the Music Room.

Council Meetings—

- First Meeting—Sunday, April 25, at 8 p. m.
- Second Meeting—Monday, April 26, at 2:30 p. m.
- Third Meeting—Tuesday, April 27, at 2:30 p. m.
- Fourth Meeting—Wednesday, April 28, at 2:30 p. m.
- Fifth Meeting—Thursday, April 29, at 2:30 p. m.

General Sessions—The public is invited to attend the following General Sessions:

- Monday, 10 a. m. to 12:30 p. m.—Presidential Addresses, ballroom.
- Tuesday, 10 a. m. to 12:30 p. m.—Addresses. Invited guests. Ballroom.
- Tuesday, 8 p. m. to 10 p. m.—Open meeting, Philharmonic Auditorium.

Wednesday, 10 a. m. to 12:30 p. m.—Addresses. Invited guests. Ballroom.

Thursday, 2 p. m.—Addresses. Invited guests. Ballroom.
President's Dinner and Dance—Thursday evening, ballroom.

Councilors and County Officers' Luncheon—Thursday, 12:30 to 2 p. m., Room 4.

All members of the Council and all presidents and secretaries of constituent societies are requested to be present at a luncheon to be held in Room 4, on Thursday, at 12:30. Please make your reservations for this luncheon at the registration desk as early as possible.

Program Committee and Section Officers' Luncheon—Wednesday, 12:30 to 2:30 p. m., Room 4.

The Program Committee and all incoming and outgoing Section secretaries and chairmen are invited to attend this luncheon. Please make reservations at the registration desk.

Section Meetings

ANESTHESIOLOGY SECTION

DOROTHY A. WOOD, M. D., Chairman
1390 Seventh Avenue, San Francisco
MARY F. KAVANAGH, M. D., Secretary
1020 Union Street, San Francisco

FIRST MEETING
Room 3, Hotel Biltmore
Tuesday, April 26, 2:30 p. m.

1. *Report of Two Hundred Anesthetizations of Children Under Ten Years of Age, with Nitrous-Oxide-Oxygen (Only) Used as an Anesthetic Agent*—Dorothy A. Wood, M. D., 1390 Seventh Avenue, San Francisco.

Two objections to the use of nitrous-oxide-oxygen in children formerly held. Gradual lowering of age limit in recent years until now it is felt that age has no influence in the selection of an anesthetic. Advantages of nitrous-oxide-oxygen in certain pathological conditions. Classification of cases as to age and the types of operations performed. Repeated anesthetization of same subjects. Technique of administration. Conclusions.

2. *Postoperative Pulmonary Complications*—L. R. Chandler, M. D., 490 Post Street, San Francisco.

A study is made of some of the common postoperative pulmonary complications. They are divided into three fairly definite groups: 1. The early pulmonary complications. 2. The late pulmonary complications. 3. Postoperative massive collapse of the lung. The clinical features of each group are presented. The histories of five cases, representing these three clinical types are given. The possible causes of postoperative lung complications are reviewed, and a plan is suggested which might reduce their frequency.

3. *Motion Pictures of Congress of Anesthetists with British Medical Society*—Shown by Mary E. Botsford, M. D., 807 Francisco Street, San Francisco.

4. *The Patient from the Standpoint of the Anesthetist*—Niel C. Trew, M. D., 2919 Waverly Avenue, Los Angeles.

General classification of patients according to sex, age, race, and personal peculiarities. The influence of pathological conditions; status lymphaticus; thyroid cases; heart lesions; tuberculosis; high blood pressure; acidosis; diabetic patients and general toxic conditions—septic cases.

5. *Removal of Teratoma of Mediastinum Under Gas and Oxygen Anesthesia (Report of a Case)*—Mary F. Kavanagh, M. D., 1020 Union Street, San Francisco.

Notes taken from History Record No. 56,737, University of California Hospital. History of the case. Operation under gas and oxygen anesthesia. Anesthetic record.

SECOND MEETING
Ballroom, Hotel Biltmore
Wednesday, April 27, 2:30 p. m.

1. *Advantages of Ethylene Oxygen as a General Anesthesia*—George A. Johnstone, M. D., Glendale Sanitarium and Hospital, Glendale.

Ease of induction and rapidity of anesthetic recovery. Less nausea and vomiting. Relaxation without cyanosis. Freedom from postoperative sweating. Narrow anesthetic margin. Absence of respiratory irritation. Increase in blood pressure during anesthesia. Ideal anesthetic for age extremes. Disadvantages, odor; danger of explosion.

2. *Tonsillectomy Under Nitrous Oxide, Oxygen Anesthesia*—Merton J. Price, M. D., 490 Post Street, San Francisco.

Contraindications to ether in presence of pulmonary and kidney pathology. Necessity for special technique. Advantages and disadvantages. Preoperative medication. Report of cases.

3. *Anesthesia in Urologic Surgery*—Mary E. Botsford, M. D., 807 Francisco Street, San Francisco; Ethel Righetti, M. D., 305 Walnut Street, San Francisco; and Clark M. Johnson, M. D., Fitzhugh Building, San Francisco.

Increasing use of local anesthesia in urologic surgery because of inhibition of kidney function by ether. Influence of morphin. Report on experiments with N_2O and O_2 to ascertain effects on kidney function, with and without morphin.

4. *The Use of Carbon Dioxide in Anesthesia for Intrathoracic Surgery*—Edgar L. Leavitt, M. D., St. Luke's Hospital, San Francisco.

Carbon dioxide as a respiratory stimulant in chest surgery. Action in abolishing cough reflex. Report of cases.

DERMATOLOGY AND SYPHILOLOGY SECTION

HARRY E. ALDERSON, M. D., Chairman
320 Medico-Dental Building, 490 Post Street
San Francisco

CHARLES E. SCHOFF, M. D., Secretary
203 Farmers and Mechanics Bank Building
104 Eighth Street, Sacramento

FIRST MEETING
Room 3, Hotel Biltmore
Monday, April 25, 2:30 p. m.

1. *Anaphylactic Dermatoses as Clinical Problems*—Moses Scholtz, M. D., Los Angeles.

Clinical experience versus laboratory in anaphylactic cutaneous tests. Allergy versus anaphylaxis. Overemphasis of allergy in occupational dermatoses and drug eruptions. Clinical characteristics of anaphylactic eczemas—their differentiation from systemic toxic, seborrheic, strepto and staphylococcic, mycotic, etc. Diagnostic limitations of cutaneous tests. Specificity of cutaneous tests. Technical limitations of cutaneous tests. Therapeutic efficiency of cutaneous tests.

2. *Papular Urticaria*—Irving Bancroft, M. D., 419 Chapman Building, 756 South Broadway, Los Angeles.

Foreign authors say that papular urticaria and prurigos are from the same basic cause. Urticaria and allergic dermatitis also are often from the same basic cause. Children in Los Angeles often have chronic papular eruption which is due to external irritants and which is often mistaken for scabies.

3. *Nonspecific Protein Therapy in Dermatology*—From the Department of Dermatology, University of California Medical School. Hiram E. Miller, M. D., and Norman Epstein, M. D., 803 Fitzhugh Building, 384 Post Street, San Francisco.

Nonspecific protein therapy has assumed an important rôle in the treatment of some dermatoses. Various proteins have been used to produce local or systemic reactions which exert a beneficial action on certain pathological processes. This type of treatment has been found of value in kerion ringworm of the scalp, ringworm of the beard, sycosis vulgaris, chronic pyogenic infections of the skin, and in syphilitic lesions which resist other therapy. The method of employment of these proteins is discussed and its effect upon certain dermatological conditions reviewed.

4. *Treatment of Acne*—Ernest D. Chipman, M. D., 501 Union Square Building, 350 Post Street, San Francisco.

The rational treatment of acne is directed against an obvious pathology. This consists of an increase both in the size and the functional activity of the sebaceous glands, a plugging of their follicles and the formation of comedones. The comedone is the primitive element of acne. Some comedones become

infected to form papules and pustules. If there is no comedone there is no acne. The x-ray reduces the size and functional activity of the sebaceous glands. Certain keratolytics help to keep open the sebaceous ducts. The combination of these two agents gives the best result in practice. The treatment by diet, internal medication, vaccines, etc., will also be discussed.

5. *Multiple Hemorrhagic Sarcoma of Kaposi* (Case Report)—From the Department of Dermatology, Stanford University School of Medicine. Ernest K. Stratton, M.D., 414 Medico-Dental Building, 490 Post Street, San Francisco.

History of primary tumor in skin ten years before multiple lesions appeared; photographs, microscopical sections, etc., showing pathology of tumors and character of gland involvement.

SECOND MEETING

Tuesday, April 26, 9 a. m.

Clinical Program

(To be held in the morning at one of the hospitals in Los Angeles, beginning at 9 a. m. This has not been definitely arranged as to place and time. No session in the afternoon.)

THIRD MEETING

Room 3, Hotel Biltmore

Wednesday, April 27, 2:30 p. m.

1. *Coccidioides Granuloma*—Harry P. Jacobson, M.D., 313 North Soto Street, Los Angeles.

The disease is most likely more prevalent than would appear from the reports in the literature. Its similarity to tuberculosis is frequently confusing to the clinician. Copper seems to offer promise of success in the treatment of this disease.

2. *Progressive Pigmentary Dermatoses (Schamberg's Disease)*—H. J. Templeton, M.D., Oakland.

Progressive pigmentary dermatosis (Schamberg) is a definite clinical entity. A new case is herein reported with a summary of the findings in previously recorded cases. A histopathologic study is included. Both the clinical and the laboratory findings are contrasted with those found in Majocchi's disease and angioma serpiginosum.

3. *Treatment of Malignant Growth of the Mouth*—Irwin Sutton, M.D., 916 Taft Building, 1680 North Vine Street, and Rea Proctor McGee, M.D., Hollywood Security Building, 6381 Hollywood Boulevard, Hollywood, California.

Malignant neoplasms of the mouth fall into three general groups: first, those that destroy tissue; second, those that destroy function and appearance by pressure; third, those that are limited to the surface.

In the first group we find all forms of carcinoma, in the second group are sarcomas and malignant cysts, in the third group are epitheliomas and leukoplakias.

General operative and nonoperative treatment and reparative measures particularly with a view toward restoration of function and appearance will be discussed.

4. *Nonspecific Treatment of Syphilis*—Merlin T. R. Maynard, M.D., 511 Twohy Building, San Jose.

1. The factors of resistance and immunology are often forgotten in the treatment of the luetic patient. 2. By the nonspecific handling of the case I mean the use of therapeutic measures that tend not toward the poisoning of the spirochaete in the organism, but toward the increasing of the bodily defenses to the infecting agent. 3. These measures attempt the production of heat, phagocytosis, the formation of antibodies, and the raising of the individual to the best possible state of health. 4. These methods are described, and are suggested as adjuncts to efficient specific therapy.

5. *Early Syphilitic Manifestations Appearing During the Course of Antisyphilitic Treatment*—Kendal P. Frost, M.D., 831 Pacific Mutual Building, 523 West Sixth Street, Los Angeles.

A report of two instructive cases. Case 1—Syphilitic alopecia developing one month after treatment, having received five injections of neoarsphenamine and one of mercury salicylate. Case 2—Characteristic syphilitic papules appearing during the terminal stage of postarsphenamine dermatitis following six injections of neoarsphenamine in primary Wassermann positive syphilis. The Wassermann reaction during the papular eruption was negative and the eruption faded spontaneously in a few days. These cases are instructive because they seem to indicate that a clinical manifestation of early syphilis can make its appearance without spirochaetosis. It is probably explainable on an assumption of a toxin so affecting the vasomotor system that that treatment did not influence the development of lesions, the evanescence of the manifestations and absence of other signs of activity of the disease being evidence of its being under control.

EYE, EAR, NOSE, AND THROAT SECTION

PERCIVAL DOLMAN, M.D., Chairman

1035 Medico-Dental Building, 490 Post Street
San Francisco

SIMON JESBERG, M.D., Secretary

1151 West Sixth Street, Los Angeles

FIRST MEETING

Room 7, Biltmore Hotel

Monday, April 25, 2:30 p. m.

1. Chairman's Address: *The Essentials of a Training in Refraction*—Percival Dolman, M.D., 1035 Medico-Dental Building, 490 Post Street, San Francisco.

2. *Molluscum Contagiosum of Eyelids*—Hugo A. Kiefer, M.D., 406 Brockman Building, 526 West Seventh Street, Los Angeles.

Discussion opened by Frank E. Detling, M.D.

Discusses etiology, incidence, pathology, and treatment. Report of a case.

3. *The Surgical and Radium Aspects of Extensive Ocular Melanosis*—P. Obarrio, M.D., 204 Union Square Building, 350 Post Street, San Francisco.

Discussion opened by Walter Scott Franklin, M.D.

Melanosis of conjunctiva. Report of case. Describes pathology and symptoms. Treatment by radium.

4. *Experiences with Thermophore Therapy*—M. F. Weymann, M.D., 418 Westlake Professional Building, 2007 Wilshire Boulevard, Los Angeles.

Discussion opened by Joseph L. McCool, M.D., Portland, Oregon.

Treatment of pneumococcus ulcer, dendritic ulcer and indolent ulcer of the cornea, and neoplasms of the globe and lids with the thermophore of Shahan is described. For successful results one must use the proper temperature, complete anesthesia, firm pressure and applicators larger than the lesion treated.

5. *Pyocytic Stomatitis—With a Report of Some Animal Experimental Work*—Fred H. Linthicum, M.D., 914 Pacific Mutual Building, 523 West Sixth Street, Los Angeles.

Discussion opened by Roy W. Hammack, M.D.

Case report with fatal termination in a middle-aged woman, following pregnancy. Describes bacterial studies and animal experimentation.

SECOND MEETING

Room 7, Biltmore Hotel

Tuesday, April 26, 2:30 p. m.

1. *Trichloroacetic Acid in the Treatment of Ulcerative Laryngeal Tuberculosis*—Bertram C. Davies, M. D., 924 Pacific Mutual Building, 523 West Sixth Street, Los Angeles.

Discussion opened by C. Benson Wood, M. D.

Describes method of applying the pure acid to tuberculous ulceration of the larynx. Beneficial results obtained. Reports of five cases.

2. *The Technique of Laryngectomy*—Harrington B. Graham, M. D., 619 Medico-Dental Building, 490 Post Street, San Francisco.

Discussion opened by I. W. Thorne, M. D.

The technique of Hautant and of MacKenty has been followed by the writer, that is, a skeletonization of the larynx under local anesthesia, a dissection from below upward and an extraction under ether followed by drainage of the wound. The paper is offered to call forth a discussion of various methods in technique.

3. *The Relation of Arsenicals Used in the Treatment of Syphilis to Optic Neuritis*—George N. Hosford, M. D., 437 Medico-Dental Building, 490 Post Street, San Francisco.

Discussion opened by Percival Dolman, M. D.

Reports a case that developed optic neuritis following four injections of neosalvarsan for the treatment of recently acquired syphilis. Discussion of cause of the neuritis. Review of literature.

4. *Unilateral Sighting*—Lloyd Mills, M. D., 814 Edwards-Willey Building, 609 South Grand Avenue, Los Angeles.

Discussion opened by Roderic O'Connor, M. D.

Author's work showing that sighting is done by the dominant eye only. Line of sight is lateral, with but few exceptions and is in relation to fundamental, not acquired, handedness. Theory that vision is cyclopean is discarded.

5. *Motais Operation—The Results in Eighteen Cases*—Roderic O'Connor, M. D., 910 Medical Building, 1904 Franklin Street, Oakland.

Discussion opened by Lloyd Mills, M. D.

An argument in favor of this operation for ptosis, because it takes advantage of the associated action of superior rectus and lid elevator. Cosmetic advantages of this operation.

THIRD MEETING

Room 7, Biltmore Hotel

Wednesday, April 27, 2:30 p. m.

1. *Streptococcus Mucosus Infection Causing Lateral Sinus Thrombosis*—H. J. Profant, M. D., 1421 State Street, Santa Barbara.

Discussion opened by Hill Hastings, M. D.

Bacteriology and pathology of streptococcus mucosus. Case report; a young boy with mild otitis and no mastoid symptoms. Long latent period. Sudden onset of meningeal irritation, due to subdural abscess followed by definite sinus thrombosis symptoms. Value of two-stage operation in aiding walling off of infection. Possible value of mercurochrome in systemic infection.

2. *Surgical Treatment of Frontal Sinus Suppurations*—J. Frank Friesen, M. D., 711 Merritt Building, 307 West Eighth Street, Los Angeles.

Discussion opened by Frank A. Burton, M. D.

Frontal sinus suppurations relatively rare. Pathology and complications of frontal sinusitis. Treatment by intranasal method. Surgical anatomy and operative landmarks shown with lantern slides. Type of operation determined by size, contour, etc., of sinuses. Bibliography. Report of three cases.

3. *Lipiodol in Chronic Lung Suppurations*—C. Benson Wood, M. D., 700 Merritt Building, 307 West Eighth Street, Los Angeles.

Discussion opened by E. Richmond Ware, M. D.

A short resumé of the early use of iodized oil in the bronchial tree. Methods of introduction with comments. Report of cases with slides of chest radiographs. Conclusions. Bibliography.

4. *Plastic Surgery of the Face*—J. Paul De River, M. D., 369 Flood Building, 870 Market Street, San Francisco.

Discussion opened by John Homer Woolsey, M. D.

Value of plastic surgery. Progress since World War. Solution of many problems by cooperation of general surgeon and specialist. Improvement of technique.

5. *Demonstration of the Hess Curtain for the Diagnosis of Paretic Ocular Muscles*—Dohrmann K. Pischel, M. D., 1417 Medico-Dental Building, 490 Post Street, San Francisco.

GENERAL MEDICINE SECTION

J. MARION READ, M. D., Chairman

1183 Flood Building, 870 Market Street

San Francisco

JAMES F. CHURCHILL, M. D., Secretary

700 Electric Building, 861 Sixth Street

San Diego

FIRST MEETING

Music Room, Biltmore Hotel

Monday, April 25, 2:30 p. m.

1. *The Therapeutic Use of Ephedrin*—I. C. Schumacher, M. D., and T. L. Althausen, M. D., University of California Hospital, Fourth Avenue and Parnassus Street, San Francisco.

Ephedrin was used in the following conditions: hypotension, bronchial asthma, hay fever, urticaria, and angioneurotic edema. 1. In hypotension, ephedrin consistently raised the systolic blood pressure. 2. In asthma and hay fever some relief was obtained in nearly all cases and the attacks were controlled completely in a considerable proportion of cases. 3. Urticaria and angioneurotic edema were not affected by the drug.

The most important advantages of ephedrin over adrenalin are that it is effective when given by mouth, and that its action extends over a period of many hours. The disadvantages of the new drug consist in a failure to relieve asthmatic attacks in occasional subjects, and in the occurrence of untoward gastrointestinal and nervous symptoms in rare cases.

2. *The Etiology of Cough*—William C. Voorsanger, M. D., and Fred Firestone, M. D., 1001 Medico-Dental Building, 490 Post Street, San Francisco.

Based upon an intensive study of two hundred patients with chronic cough seen at Mount Zion Chest Clinic and in private practice. All patients were submitted to a routine examination including physical, x-ray, sputum examination and sputum culture and guinea-pig inoculation. Nineteen classifications of cough are isolated. These are ostensibly nontuberculous. Emphasis is placed upon two main groups: 1. An infectious asthma and bronchitis, representing 34 per cent of the total series, which can be benefited by the use of an autogenous vaccine. 2. An undiagnosed group, representing 32 per cent of the series, in which some patients can be improved but in which most are potentially tuberculous or bronchiectatic, although not proven so.

Illustrated with charts and lantern slides.

3. *Nontuberculous Lung Suppuration*—Philip H. Pierson, M. D., 811 Medico-Dental Building, 490 Post Street, San Francisco.

Subject divided into localized abscess or abscesses, chronic pneumonia, and bronchiectasis. These are discussed from the standpoint of

Etiology: 1. Aspiration { pneumococcus
2. Embolic { streptococcus
3. Pneumonic { a. Infectious { influenza
4. Empyemic { b. Traumatic { whooping cough

Pathology: Of particular importance in differentiating chronic pneumonic and bronchiectasis. This is helpful in determining prognosis. Treatment: Prophylactic. Conservative versus radical (this will allow discussion from internists and surgeons). Prognosis: Pathology helps; more promptly determined and more favorable in processes with acute onset than in those secondary to chronic processes.

4. *Lipiodol in Chronic Pulmonary Suppurations*—E. Richmond Ware, M. D., 506 Professional Building, 1052 West Sixth Street, Los Angeles.

1. Lipiodol, its physical and chemical properties. 2. Technique of injection. 3. Class of cases in which it is to be employed: (a) indications; (b) contra-indications. 4. Its value as a diagnostic procedure in: (a) bronchiectasis; (b) lung abscess; (c) determining effectiveness of collapse by pneumothorax or thoracoplasty; (d) pulmonary tuberculosis. 5. Therapeutic value. 6. Toxic effects. 7. Illustrative cases, with demonstration of slides of films.

5. *Experimental Work on the Effects of Diuretics in Nephritis*—Burrell O. Raulston, M. D., 2007 Wilshire Boulevard, Los Angeles.

This paper presents the results of a study of the diuretics in normal rabbits and in rabbits with experimental nephritis. Some interesting observations on spontaneous diuresis were made in control experiments. The effects of specific diuretics in normal rabbits, in rabbits injected intramuscularly with horse serum and in rabbits during the acute reaction from intravenous injection of foreign protein, as observed in a large group of experiments are shown in charts. A lowering of the threshold for sugar excretion is indicated. A comparison of these results, with those obtained in working with animals that have nephritis produced by x-ray exposures.

SECOND MEETING

Music Room, Biltmore Hotel

Tuesday, April 26, 2:30 p. m.

1. *Treatment of the Ambulatory Patient with Peptic Ulcer*—Fletcher B. Taylor, M. D., 701 Medical Building, 1904 Franklin Street, Oakland.

The successful treatment of ulcer rests on the consideration of multiple factors in etiology. Hereditary irritability of the digestive tract may be one of the important considerations. Foci of infection and the forces which find expression as duodenal traumata should be eradicated. The "central nervous load" which the patient carries is one factor which separates the experimental ulcer in animals from the clinical ulcer in man. The patient must shape his program to the cure of his ulcer for a period of from one to two years. If successful, most of this time the patient will be symptom-free. Surgery is but one step in the cure of one group of ulcer patients. Peptic ulcer is essentially a medical disease in an ambulatory patient.

2. *New Methods of Gastric Analysis*—Arthur L. Bloomfield, M. D., Stanford Hospital, Clay and Webster streets, San Francisco.

The difficulties and disadvantages of the usual methods of gastric analysis are discussed and certain physiological considerations, especially with reference to the secretion of acid, will be taken up. The advantages of the alcohol test meal, which makes possible the estimation of volume of gastric secretion

as well as the acidity of the pure gastric juice will be discussed, with a summary of the clinical information which can be derived from methods of this sort.

3. *The Spastic Colon*—Q. O. Gilbert, M. D., 301 Medical Building, 1904 Franklin Street, Oakland.

Disordered bowel movement is most common. Interpretation of clinical findings and symptomatology on the basis of physiological complexes suggests corrective treatment. Two main types of stimulation, extrinsic and intrinsic causing segmental or zonal contraction are recognized. The rule of "proximal stasis and distal hypermotility" suggests the frequent clinical picture. Careful observation presents, in patients with abdominal symptoms, contractions more frequent than atony. This viewpoint suggests a conception of constipation contrary to that fostered largely in the past decade, and a more rational treatment on a pathological physiological basis.

4. *The Rose Bengal Liver Function Test (Studies of the Simplification of the Test)*—William J. Kerr, M. D., University of California Hospital, Fourth Avenue and Parnassus Street, San Francisco, and N. N. Epstein, M. D., and G. D. Delprat, M. D., Fitzhugh Building, 384 Post Street, San Francisco.

Rose Bengal (diiodotetrachlorfluorescence) is eliminated from the blood stream of humans solely by the liver through the bile passages. This fact has been used to develop a clinical test for liver disease. The technique is simple and can be performed by any clinician. It is merely an intravenous procedure in which the dye is injected into the blood stream and specimens of blood examined two, eight, and sixteen minutes after the injection to determine the rate of disappearance of the dye. This rate of disappearance is very definitely delayed where liver disease is present.

The clinical application of the test is of particular value in determining the presence and extent of liver disease in an individual. The test has been applied in cases of cirrhosis of the liver, metastatic malignancy of the liver, obstructive jaundice, catarrhal jaundice, arsphenamine icterus, liver abscess, pyophlebitis of the liver, chronic cholecystitis, chronic passive congestion of the liver, and syphilis of the liver.

5. *Treatment of Polycythemia Vera with Phenylhydrazine*—Samuel H. Hurwitz, M. D., 1214 Medico-Dental Building, 490 Post Street, San Francisco, and Joseph Leviton, M. D., 1015 Story Building, 610 South Broadway, Los Angeles.

The clinical symptoms of polycythemia vera (Osler's disease; Vaquez's disease) are in the main due to an increased bulk of red cells resulting from excessive erythroblastic activity of the bone marrow. The treatment has, therefore, concerned itself with methods of relieving symptoms by reducing the total blood mass. Venesection, roentgen rays, radium, and benzol have all been employed for this purpose with some modicum of success.

It is the purpose of this paper to record the clinical course of a patient with polycythemia vera treated with phenylhydrazine, and to emphasize the value and dangers of this drug as well as the importance of using certain criteria for the control of its dosage.

THIRD MEETING

Music Room, Biltmore Hotel

Thursday, April 28, 10 a. m.

1. *Chairman's Address: Clinical and Physiological Significance of Blood Pressure*—J. Marion Read, M. D., 1183 Flood Building, 870 Market Street, San Francisco.

2. *Coronary Occlusion*—P. Berman, M. D., 2308 Victoria Road, Los Angeles, and V. R. Mason, M. D., 838 Pacific Mutual Building, 523 West Sixth Street, Los Angeles.

Discussion opened by James B. Herrick, M. D.

A statistical and electrocardiographic study of the coronary T wave in 1500 electrocardiographs. This study shows the importance of this wave in recent and healed myocardial infarcts; in aortic valvular disease of arteriosclerotic and especially syphilitic origin; and in certain other affections in which heart disease was not suspected. Brief abstracts of illustrated cases. (Lantern slides.)

3. *A Review of a Series of Cases of Auricular Fibrillation*—Donald J. Frick, M. D., and Robert Helm Kennicott, M. D., 804 Medical Office Building, 1136 West Sixth Street, Los Angeles.

A report of fifty-one cases, with the following points reviewed: etiology, duration of fibrillation, concomitant cardiac conditions, effects of treatment, causes of death, high percentage of emboli in brain or viscera.

4. *Experiences with Colloidal Lead in the Treatment of Advanced Cancer*—Albert Soiland, M. D.; William E. Costolow, M. D.; and Orville N. Meland, M. D., 1407 South Hope Street, Los Angeles.

Discussion opened by Franklin R. Nuzum, M. D.

Colloidal lead, as described by Bell, and a modified colloid of lead phosphate have been used in the treatment of advanced malignancy. The reactions one sees are severe and usually affect not only the malignant cell, but also such normal tissues as blood, kidney, and liver. The results are disappointing, for they do not come up to the achievements reported by Bell, but this may be due to the type of cases we treated or to our lack of experience in administration of the proper dosage. Apparently in order to achieve any result, one must have a general as well as a local reaction.

5. *Medical Management of Gangrene of the Extremities*—J. Edward Harbinson, M. D., Woodland Clinic, Woodland.

Gangrene is usually considered a surgical rather than a medical problem. Amputation may be avoided in many cases by proper medical management. This requires the expenditure of considerable time, patience and money. Sound medical judgment is paramount in selecting cases for treatment. The points to be considered are enumerated. An outline of the medical régime for each disease of which gangrene is a complication is presented, as well as a consideration of the general measures applicable to the treatment of gangrene. Case reports, with results, are presented with color drawings showing the condition before and after treatment.

GENERAL SURGERY SECTION

FRED R. FAIRCHILD, M. D., Chairman
Woodland Clinic, Woodland

JOHN H. BREYER, M. D.
Secretary Southern Section
701 Professional Building
65 North Madison Avenue, Pasadena

EDMUND BUTLER, M. D.
Secretary Northern Section
615 Medico-Dental Building, 490 Post Street,
San Francisco

FIRST MEETING

Auditorium, Pacific Mutual Building
523 West Sixth Street
Monday, April 25, 2:30 p. m.

1. *Chairman's Address*—Fred R. Fairchild, M. D., Woodland Clinic, Woodland.

2. *The Present Trend of Gastric Surgery*—J. H. Woolsey, M. D., 907 Medico-Dental Building, 490 Post Street, San Francisco.

Discussion opened by Charles E. Phillips, M. D., and John Cowan, M. D.

A resumé of opinions of the leading world authorities upon the surgical treatment and technique of the common lesions of the stomach and duodenum. The preoperative preparation, important points in technique and postoperative results will be emphasized. The author's experience will be given. (Lantern slides.)

3. *Gastrointestinal Symptoms Masking Gall Bladder Diseases*—Clarence G. Toland, M. D., 1028 Pacific Mutual Building, 523 West Sixth Street, Los Angeles.

Discussion opened by Rea Smith, M. D.

1. Gall bladder disease can be easily diagnosed when the typical symptoms are present. 2. A part of the atypical symptomatology displayed in gall-bladder disease may be due to direct adhesions of one viscus to another or from old inflammatory processes in the abdomen. 3. But the great majority of cases are of reflex origin, due to the indirect nerve connections between the gall bladder and the gastrointestinal tract.

4. *The Treatment of Gastro Ulcer and Its Complications*—Donald C. Balfour, M. D., Mayo Clinic, Rochester, Minnesota.

Discussion opened by Ezra Rich, M. D., Ogden, and Emmet Rixford, M. D.

1. The incidence of gastric ulcer. 2. The frequency of complications: hemorrhage, obstruction, perforation, malignant degeneration, and hourglass deformity. 3. Indications for operation. 4. Operative procedures.

5. *The Clinical and Surgical Aspects of Cholesterosis of the Gall Bladder*—Stanley H. Mentzer, M. D., 516 Sutter Street, San Francisco.

Discussion by Wallace I. Terry, M. D., Donald Balfour, M. D., and Stanley Stillman, M. D.

One thousand cases of cholesterosis of the gall bladder are studied, five hundred of the cases also contain gall-stones. Comparison studies are made of the normal gall bladder, the cholesterol-laden gall bladder, and cholesterosis with stones; twelve tables illustrate the essential parallels and deviations. Extensive and careful clinical data are compared with x-rays (plain plate and Graham-Cole), clinical diagnoses and their errors, history, etc. Obesity and pregnancy are studied in relation to cholesterosis of the gall bladder with blood-cholesterol graphs, etc. The operative findings, procedure and errors given, and the pathological descriptions correlated with the preoperative opinions. Adjacent pathology (nephritis, pancreatitis, etc.) are studied and compared with cholesterosis cases of evident inflammatory origin. Nine conclusions are drawn.

SECOND MEETING

Auditorium, Pacific Mutual Building
523 West Sixth Street
Tuesday, April 26, 2:30 p. m.

1. *Industrial Traumatic Thrombosis of the Upper Extremities*—Joseph K. Swindt, M. D., 546 Investment Building, Pomona.

Discussion opened by Roy W. Hammack, M. D.

The definition of traumatic thrombosis and a review of reported cases arising from occupational activity suggest: 1. Their relation to the Working Men's Compensation Act which depends upon recognition of chronic traumatism as a direct cause of thrombosis, without previous or latent infection. 2. The mechanical theory of thrombus formation as held by the modern (Aschoff) school is based on three factors: (1) slowing of the stream; (2) changes

in the vessel wall; (3) changes in the blood constituents. 3. The prevalence of traumatic thromboses in the upper over the lower extremities is determined by the anatomical environment of the subclavian and brachial veins, which affords exceptional opportunity for the opposing forces of intra- and extrathoracic effort to slow the stream and damage the wall of the vessels between the clavicle and the first rib. 4. The metamorphosis of a thrombus explains the prognosis and suggests the treatment of primary rest and later activity and the futility of surgical attack. 5. Report of case. 6. Bibliography.

2. *The Ascending Colon—Abnormalities and Constricting Bands*—Foster K. Collins, M. D., 914 Detwiler Building, 412 West Sixth Street, Los Angeles.

Discussion opened by Alanson Weeks, M. D.

The paper considers the embryology and normal rotation of this portion of the colon. The abnormal positions due to faulty rotation and other abnormalities, together with bands causing acute and chronic surgical conditions with their symptoms and surgical treatment are discussed.

Brief case reports are given of several patients coming to operation, with slides showing x-ray and operative findings.

3. *Extra Articular Fusion of the Hip-Joint*—John C. Wilson, M. D., 410 Medical Office Building, 1136 West Sixth Street, Los Angeles.

Discussion opened by Edward Bull, M. D.

Certain pathologic changes of the hip-joint require elimination of motion for relief of symptoms. The hip-joint has been found difficult to fuse by joint erosion. A method of ilio-femoro-plasty, simple and successful, is offered. The practical application of hip-joint fusion to juvenile tuberculosis is discussed.

4. *The Indications for Whole Blood Transfusion*—LeRoy Brooks, 731 Medico-Dental Building, 490 Post Street, San Francisco.

Discussion opened by R. S. Dinsmore, M. D., Cleveland Clinic, and Leo P. Bell, M. D.

Blood transfusions were formerly rarely done. The work on blood grouping which made the procedure practically safe did much to make it more popular. There have been many techniques of giving citrated or whole blood evolved. Whole blood transfusions are preferable. The good results which usually follow transfusion have done much to broaden the usefulness of the procedure. The aim of the paper is to encourage more frequent use of transfusions and the indications are discussed.

5. *Immediate and Remote Results of Prostatectomy*—Arthur B. Cecil, M. D., 1016 Pacific Mutual Building, 523 West Sixth Street, Los Angeles.

Discussion opened by Rea Smith, M. D.

This paper does not deal with the technique of prostatectomy. It is a critical review of the immediate and remote results of 202 consecutive prostatectomies which have been operated on by the author. It considers the condition of the patient previous to operation; functional studies and physical findings and the results of the operations which were done for the relief of prostatic obstruction. It enters into detail of the immediate results, that is, results obtained upon the patient's discharge from the hospital and further in the follow-up series of studies to do with their present physical and mental conditions, their kidney functional studies, and their sexual function.

THIRD MEETING

Auditorium, Pacific Mutual Building
523 West Sixth Street

Thursday, April 28, 10 a. m.

1. *The Goiter Problem*—George W. Middleton, M. D., Intermountain Clinic, Salt Lake City.

Discussion opened by Wallace I. Terry, M. D., and Philip K. Gilman, M. D.

2. *Preoperative and Postoperative Care of Goiter Patients*—R. S. Dinsmore, M. D., Cleveland Clinic, Cleveland, Ohio.

Discussion opened by H. H. Searls, M. D., and Alanson Weeks, M. D.

Preoperative care: Absolute rest. Lugol's solution. Protection of the myocardium—digitalis. Management of decompensation; of delirium. Criteria for operability. Graded operation in severe cases.

Postoperative care and complications: Hyperthyroidism reactions. Injury of recurrent laryngeal nerve—importance of early tracheotomy. Postoperative hemorrhage and mediastinal extravasation. Tetany. Transient myxedema. Psychoses. Postoperative collapse of the lungs. Tracheitis and pulmonary infection.

3. *Experimental Studies in Pulmonary Suppuration*—Emile Holman, M. D., Stanford University Hospital, Clay and Webster streets, San Francisco.

Discussion opened by Charles D. Lockwood, M. D., Pasadena; L. R. Chandler, M. D.

Tuberculous emboli introduced into the jugular vein were arrested in the pulmonary circulatory bed, where they initiated pathological changes in the pulmonary tissue resulting successively in anemia, infarction, caseation, central softening and abscess formation. The earliest appearance of a well-defined abscess following the introduction of the tuberculous embolus was on the twelfth day, whereas pyogenic emboli produced abscesses within four to six days.

The pathological changes initiated by pyogenic emboli took various forms: (1) limited consolidation about the embolus with early recovery; (2) hemorrhagic infarction with recovery or with central softening and abscess formation; (3) massive hemorrhagic consolidation and death.

A relative lymphocytosis accompanied the tuberculous processes in the lungs, as contrasted with a true polymorpholeucocytosis that accompanied the pyogenic processes.

The embolus as such produced only slight changes in the pulse and the respiratory rates. It was only when the effect of the accompanying infection made itself felt after the elapse of twelve or twenty-four hours that the pulse rate and respiratory rate became elevated (H 23, H 13).

Positive blood cultures were obtained in a number of instances following the introduction of pyogenic emboli. The bacteriemia was frequently only temporary, and the animals fully recovered (H 23, H 18, H 17, H 9). In three instances the animals died (H 10, 2H 21, 2H 18), and a complicating septicemia probably accounted for the death of two other animals (H 2 and H 5).

The embolus, introduced with the animal in the supine position, usually followed the main current in the pulmonary artery, lodging in the left lower lobe fourteen times, in the right lower lobe eleven times, in the left upper lobe twice, in the right upper lobe once, and in the right middle lobe once.

Good healing of the bronchial stump occurred in every instance in which lobectomy was performed, following an atraumatic inversion of the stump by sutures placed in the peribronchial tissues.

The uniform and invariable pathological changes which followed the introduction of a tuberculous embolus into the jugular vein suggest that this experimental method may lend itself to a study of certain much mooted questions, such as the effect of tuberculin in establishing immunity, the pathway of tuberculous infection, the value of therapeutic agents, surgical and medical, and other like problems in the realm of tuberculosis.

4. *Surgical Management of Phthisis* (Preoperative Considerations—Doctor Hoit; Operative Considerations—Doctor Mattison)—S. J. Mattison, M. D., Professional Building, 65 North Madison Avenue, Pasadena, and Henry A. Hoit, M. D., La Vina, California.

Discussion opened by Leo Eloesser, M. D.

Preoperative considerations: In the management of phthisis, surgery may produce in suitable cases,

irrespective of the cooperation of the patient, what prolonged bed rest might not accomplish, namely, conditions favorable for localization and healing—relaxation of pulmonary tissue, collapse of cavities, surgical cleanliness, local functional lung rest, economic recovery, and comparative efficiency.

Operative considerations: In surgical management of phthisis vital operative considerations are: individuality and physical state. Advisable considerations are age, nutrition, social position, location and character of lesion, condition of blood, temperature, pulse, blood pressure, digestive and genitourinary tract. Technical considerations are preparation, instruments, position, anesthesia, manner of procedure, wound-treatment, no manual compression.

5. *Medical Aspects of Thoracoplasty—Selection of Cases—Some Experiences of a General Surgeon in Surgery of Pulmonary Tuberculosis*—Amos D. Ellsworth, M. D., 502 Rowell Building, Fresno, and John H. Pettis, M. D., 902 Mattei Building, Fresno.

Discussion opened by Louis D. Remington, M. D., Monrovia, California.

In unilateral tuberculosis where pneumothorax is impossible, thoracoplasty offers much to otherwise hopeless cases. Danger of operation and pain being insignificant compared with the disease, it deserves to be considered better than a last resort.—A. D. Ellsworth.

Thirty thousand cases in the United States in which surgical treatment is indicated. If these cases are to receive proper treatment general surgeon must concern himself with problem. Cases chosen by tuberculosis specialist in consultation with roentgenologist and surgeon. Local anesthesia found satisfactory. Technique of operation not too difficult to be mastered by general surgeon.—J. H. Pettis.

INDUSTRIAL MEDICINE AND SURGERY SECTION

CLARENCE E. REES, M. D., Chairman
415 Elm Street, San Diego

JOHN D. GILLIS, M. D., Secretary
Detwiler Building, 412 West Sixth Street, Los Angeles
Auditorium Pacific Mutual Building
523 West Sixth Street

Wednesday, April 27, 2:30 p. m.

1. *Head Injuries Industrially Considered*—Carl Rand, M. D., 1034 Pacific Mutual Building, 523 West Sixth Street, Los Angeles.

Impressions gained from neurological examination of industrial cases that have sustained head injuries. Differences in reactions of industrial cases from those which have no insurance angle. Difficulty in evaluating dizziness as a disabling symptom. Remarks regarding general management of cases.

2. *Sickness Versus Accidents: A Medical Problem in Industrial Economics*—C. O. Sappington, M. D., 602 Hutchinson Building, 1706 Broadway, Oakland.

The present status in industrial medicine. The influence of compensation laws and insurance companies. Emphasis placed on the care of injuries. The experience of various large groups. Sickness the chief cause of absenteeism. Sickness more costly than accidents. Sickness versus accidents in insurance companies. Statement of the problem. Future possibilities. Summary. (Lantern slides.)

3. *Surgical Aspects of Chest Injuries*—Charles D. Lockwood, M. D., 605 Professional Building, 65 North Madison Avenue, Pasadena.

Experience gained regarding chest injuries during the World War not applied with sufficient courage and understanding to same in civil life.

In serious chest injuries with hemorrhage, dyspnea

and lung collapse, of greatest importance to thoroughly expose traumatized organs and treat them under direct inspection.

Most serious complication of chest injuries is opened pneumothorax or sucking wound. Such wounds should be immediately closed, if necessary, with plugging with moist gauze or other protective material until operative measures can be employed.

Methods of exposure and operative procedures in chest injuries.

4. *Industrial Medicine*—L. P. Howe, M. D., Standard Oil Building, 225 Bush Street, San Francisco.

Value of physical examinations and annual examinations of employees. Relation between personnel and medical departments. Tuberculosis in industry. A few general observations in relation to medical work in industry.

NEUROPSYCHIATRY SECTION

NATHANIEL H. BRUSH, M. D., Chairman
193 Micheltorena Street, Santa Barbara

EDWARD W. TWITCHELL, M. D., Secretary
412 Medical Building, 909 Hyde Street,
San Francisco

FIRST MEETING

Auditorium Building

Wednesday, April 27, 2:30 p. m.

1. *Chairman's Address*—Nathaniel H. Brush, M. D., Santa Barbara.

2. *Pathology in Huntington's Chorea*—W. F. Schaller, M. D., 608 Medical Building, 909 Hyde Street, San Francisco.

Modern conceptions of pathology and mechanism. Report of three personal cases. Analysis by motion pictures. Necropsy findings and serial brain sections.

3. *Psychiatry and University Men*—S. K. Smith, M. D., Strad Building, 230 Grand Avenue, Oakland.

This survey of psychiatric material seen at the University of California Infirmary over a period of three years, includes three hundred men students. An attempt is made to cover the following points: (a) An introductory idea of the development of mental hygiene services in various colleges and universities. (b) Arguments for and against the association of a psychiatric service with the student health service. (c) A consideration of types of cases encountered together with modes of handling cases. (d) A correlation of various findings such as physical, participation in university activities, etc., with psychiatric findings. (e) Recommendations for the carrying out of an adequate mental hygiene program in universities.

4. *Certain Biological Phases of Chronic Infections of the Nervous System*—J. Ross Moore, M. D., Brockman Building, 520 West Seventh Street, Los Angeles.

A philosophizing fragment in which certain known biological and psychological facts are rearranged and correlated, the idea being to develop a sequence of physiological events which may provide a proper organic basis for impressions, ideas, thoughts, conclusions and all human functional activities.

5. *Unusual (Problem) Children Analyzed*—V. H. Podstata, M. D., Livermore, California.

Analysis of physical and mental etiologic factors in three problem cases. The physical make-ups and the reaction types. The influence, direct and indirect, of acquired physical inferiorities upon development of personality. The influence of early environment. The prognosis. The preventive and curative measures.

6. *A Mental Hygiene Program for the State of California*—Aaron J. Rosanoff, M. D., 716 Westlake Professional Building, 2007 Wilshire Boulevard, Los Angeles.

A complete mental hygiene program can be organized and carried out only by a state government. California holds a comparatively high rank in the field of mental hygiene, but neither this state nor any other state has as yet attained a complete mental hygiene program.

Past experience has shown that the initiative in this matter must apparently originate from private sources. This consideration has led to the establishment of the Southern California Society for Mental Hygiene. The object of this contribution is not only to outline a mental hygiene program for this state, but also to enlist the interest and cooperation of physicians in the northern part of the state in the activities of the mental hygiene society.

OBSTETRICS AND GYNECOLOGY SECTION

LYLE G. MCNEILE, M. D., Chairman

1021 Pacific Mutual Building, 523 West Sixth Street
Los Angeles

HENRY N. SHAW, M. D., Secretary

901 Pacific Mutual Building, 523 West Sixth Street
Los Angeles

FIRST MEETING

Ballroom, Biltmore Hotel

Monday, April 25, 2:30 p. m.

1. *Chairman's Address: Contraception*—Lyle G. McNeile, M. D., 1021 Pacific Mutual Building, 523 West Sixth Street, Los Angeles.

This is essentially an obstetrical problem, but the principal discussion of it has been conducted by laymen along theological, ethical, economic, and social lines. From the physician's standpoint many physical conditions may form definite indications for the prevention of conception, but the problem is very broad, and often economic and social questions must be considered in their bearing upon the medical problem. There are certain legal restrictions placed upon the furnishing of such information by state and federal governments which should be understood. The medical profession is not yet cognizant of any guaranteed contraceptive. Relative values of various methods of contraception, based upon the medical literature, and upon reports of various "birth control" clinics in the United States and abroad, are considered.

2. *The Use of Radium in Gynecology and the Cooperation of Endothermy in Treating Malignancy*—Howard A. Kelly, M. D., Baltimore, Maryland. (By invitation.)

Discussion opened by Albert Soiland, M. D., and Frank Lynch, M. D.

3. *Rôle of Fruits, Vegetables, and Milk in the Prevention of Disease*—W. D. Sansum, M. D., Cottage Hospital, Santa Barbara.

Discussion opened by Titian Coffey, M. D.

There are certain fundamental principles which apply to all diets. These will be briefly outlined, giving particular stress to those commonly violated, such as the need for amply carbohydrate; the limitation of fat; and the need for adequate amounts of protein and calcium compounds in the diet of the lactating mother.

4. *Gynecological Fallacies*—John A. Sperry, M. D., 903 Medico-Dental Building, 490 Post Street, San Francisco.

Discussion opened by W. J. Woolston, M. D.

Physician's duty: To save life. To relieve suffering and add to the sum of human happiness. Many gynecological procedures fail to attain these ends. Many of them have obverse effects. Abuse of curettage. Uterine malpositions. Tampons. Chronic urethritis. Resection of cystic ovaries. Ulcer of the cervix. Harmless birth injuries. Harmless myomata. One slide diagnosis of chronic gonorrhea. Abuse of radium and x-ray. Mishandled dyspaerurnia.

SECOND MEETING

Ballroom, Biltmore Hotel

Tuesday, April 26, 2:30 p. m.

1. *Fibromyomata of the Uterus*—Frank W. Lynch, M. D., University of California Hospital, Fourth Avenue and Parnassus Street, San Francisco.

Discussion opened by P. S. Doane, M. D.

A study of 550 uterine fibroids. The cases are classified according to age, location, and growth. Degeneration and complications are classified as whether they are pelvic or general. Treatment and results.

2. *The Environment During Pregnancy*—J. Morris Slemmons, M. D., 819 Pacific Mutual Building, 523 West Sixth Street, Los Angeles.

Discussion opened by Henry A. Stephenson, M. D.

When life was simpler, perhaps, pregnancy required fewer changes in the routine life of the prospective mother. Many of the factors in modern life, like the automobile, call for specific advice. The high tension under which many of us live may react upon women in a way that demands a long period of enforced rest for the protection of pregnancy. The doctrine of maternal impressions, of course, has no foundation.

3. *Comparative Incidence of Pelvic Pathology*—Homer C. Seaver, M. D., 604 Medical Office Building, 1134 West Sixth Street, Los Angeles.

Discussion opened by L. A. Emge, M. D., and Phil Boller, M. D.

An attempt will be made to present the relative incidence of pelvic pathology, the frequency of what may be termed associated pathology, and various practical points of interest derived from a study of this subject from an analysis of one thousand abdominal, gynecological operations done at the Los Angeles General Hospital.

4. *Urological Complications in Pregnancy*—John K. Ormond, M. D., Ford Hospital, Detroit, Michigan. (By invitation.)

Discussion opened by Leon Watkins, M. D.

PATHOLOGY AND BACTERIOLOGY SECTION

A. M. MOODY, M. D., Chairman

St. Francis Hospital, Bush and Hyde Streets
San Francisco

ROY W. HAMMACK, M. D., Secretary

1003 Pacific Mutual Building, 523 West Sixth Street
Los Angeles

Room 7, Hotel Biltmore

Thursday, April 28, 2:30 p. m.

1. *The Icterus Index and the Van Den Bergh Test*—Gabriel Segall, M. D., 609 Brockman Building, 520 West Seventh Street, Los Angeles, and M. C. Terry, M. D., Consolidated Realty Building, 607 South Hill Street, Los Angeles.

The authors discuss recently devised tests for the recognition and quantitative estimation of bilirubin in blood serum and report thirty-five clinical cases in which they made use of the tests mentioned in the title. While both are found useful, the Van Den Bergh is shown to be the more reliable and informative.

2. *Some Considerations of Physical States in Diabetes*—Dwight M. Ervin, M. D., 201 Medical Building, 909 Hyde Street, San Francisco.

The cell is here considered as a system in which there are two fundamental ideas. First, energy is stored in the form of structure, and, second, it is the state of that structure which permits the transformation of the stored energy into work.

The condition or state of the cell structure as an emulsion is the fundamental idea of this system to do work, and in the absence of glycogen this state is missing.

Experimental data in proof of the above deductions when applied to diabetes will be presented.

3. *The Effects of Lead Upon Normal and Malignant Tissues*—F. R. Nuzum, M. D., Cottage Hospital, Santa Barbara; Richard D. Evans, M. D.; H. J. Ullmann, M. D., 22 West Micheltorena Street, Santa Barbara.

Blair Bell has reported 22 per cent arrests of growth for one to five years in hopelessly advanced carcinoma by treatment with colloidal lead. By its use we have noted liquifaction of tumor tissue at necropsy, as well as a marked anemia and evidence of liver and kidney damage. Charts and photomicrographs will be presented, illustrating these changes. Because of this effect on normal tissues, colloidal trilead phosphate has been lately used with as marked an effect on the tumor, but with little or no effect on the blood or kidney, as determined clinically.

4. *Active Immunity to Diphtheria Without Free Antitoxin in the Blood Stream*—W. H. Kellogg, M. D., 970 Chestnut Street, San Francisco.

As a result of tests by both the Schick and the Kellogg methods, it has been observed that individuals previously immunized with toxin-antitoxin frequently give negative Schicks and positive Kelloggs.

Tests made on individuals reacting in the manner above described have shown that when no antitoxin is present in the blood at the time of applying the Schick test, they give a negative Schick and quickly develop a titratable amount of antitoxin.

The author's conclusion is that a state of latent antitoxic immunity exists in these persons.

5. *Comparison of Kahn Flocculation Test, the Meinicke Precipitation Test, the Kolmer-Wassermann Test, and the Ruediger-Wassermann Test*—E. H. Ruediger, M. D., 918 Taft Building, 1680 North Vine Street, Hollywood.

Parallel Kahn flocculation tests, Meinicke precipitation tests, Kolmer-Wassermann tests, and Ruediger-Wassermann tests were done on the same specimens. The Ruediger-Wassermann test gave the largest number of positive results. As compared with the Ruediger-Wassermann test the Kahn flocculation test missed 27 per cent of the positive results, the Meinicke precipitation test missed 27 per cent of the positive results, and the Kolmer-Wassermann test missed 27 per cent of the positive results. Most of the specimens on which the results disagreed came from cases of treated syphilis.

6. *On Councilmania Lafleuri*—Rawson J. Pickard, M. D., 712 Watts Building, 520 E Street, San Diego.

The writers of textbooks add confusion to the difficulties of diagnosing human parasitic amebae by including the description of councilmania with that of the others. Report of cases tending to show the pathogenic importance of this ameba.

PEDIATRICS SECTION

ANDREW J. THORNTON, M. D., Chairman
405 Electric Building, 861 Sixth Street
San Diego

FRANCIS SCOTT SMYTH, M. D., Secretary
University of California Hospital
Fourth Avenue and Parnassus Street
San Francisco

FIRST MEETING

Music Room, Biltmore Hotel
Wednesday, April 27, 2:30 p. m.

1. Chairman's Address: *Progress in Pediatrics*—A. J. Thornton, M. D., 405 Electric Building, San Diego.

Rapid advance of pediatrics in recent years, due to the application of scientific research in biochemistry, nutrition, and bacteriology. Problem of infant feeding more clearly understood now because of the influence of such men as Marriott, McCollum, Gerstenberger, etc. Recent knowledge of contagious diseases has greatly reduced morbidity and mortality from these diseases. Other advances in the field of pediatrics are discussed.

2. *Studies in Rickets*—Henry J. Gerstenberger, M. D., Professor of Pediatrics, Western Reserve Medical School, Cleveland, Ohio. (By invitation.)

Discussion opened by William Palmer Lucas, M. D., and Henry Dietrich, M. D.

3. *Management of Juvenile Diabetes, with Special Reference to Cases under Treatment for Long Periods*—James W. Sherrill, M. D., Scripps Metabolic Clinic, La Jolla.

Discussion opened by Howard West, M. D., and Francis Scott Smyth, M. D.

This paper deals with the management of diabetes mellitus with a final report of sixty-five living children under treatment from one to twelve years.

A comparison is made between the diets of the diabetic child and the normal child, likewise the changes in height and weight. The opportunities for normal existence for the diabetic child are on a par with those of the normal child when carefully supervised diabetic treatment is carried out. Gain and loss of tolerance with various types of diet. Importance of the regulation of body weight of the diabetic child.

4. *Urological Affections in Infants*—Robert V. Day, M. D., 104 Detwiler Building, 412 West Sixth Street, Los Angeles.

Discussion opened by Herman L. Kretschmer, M. D.

1. Importance. 2. Incidence. 3. Criteria for guidance in the determination of what cases to subject to major, or even minor, urologic examination. 4. Some of the urologic affections of the child; pyelitis, calculus disease, enuresis, renal tuberculosis and various obstructive conditions as congenital valves in the posterior urethra, stenosis of the urethra or ureter, diverticulum, etc. 5. Technical methods of examination and diagnosis, and a brief discussion of modern children's cystoscopes. 6. Case reports.

5. *Perifocal Infiltrations in Juvenile Tuberculosis*—Ernst Wolff, M. D., Physicians Building, 516 Sutter Street, San Francisco.

Perifocal infiltrations are reparable inflammatory processes around tuberculous foci in lung tissue and glands caused by the toxins of the Koch bacillus. The literature is reviewed regarding clinical and pathological signs and the question of differential diagnosis from nontuberculous processes. The histories of two children who show pathological changes belonging to the secondary stage of tuberculosis after the classification of Raute are discussed in which the diagnosis perifocal infiltration was made and in which the processes cleared up.

SECOND MEETING

Clinic at Anita Baldwin Hospital for Children

Thursday, April 28, 2 p. m.

Directions for reaching Anita Baldwin Hospital: Walk two blocks south on Olive Street to Seventh Street, and take "J" car going west. Get off at Fourteenth Street in front of the hospital.

1. *Presentation of Cases*—Alfred J. Scott, Jr., M. D., 906 California Medical Building, 1401 South Hope Street, Los Angeles.

The rheumatic heart of school children through various stages of disease, as affecting the heart muscle is discussed. Demonstration of cases.

2. *Prognosis of Heart Disease in Children*—Alfred Washburn, M. D., University of California Hospital, Fourth Avenue and Parnassus Street, San Francisco.

The importance of prognosis—the inadequacy of our knowledge. The prognosis is influenced by early diagnosis, foci of infection and recurrent rheumatism as well as by our ability to determine the extent of the damage done. Treatment, including supervised rest and exercises, medication and morale, not only alters the prognosis, but offers many opportunities for gaining greater insight into the prognosis.

RADIOLOGY SECTION

JOHN W. CROSSAN, M. D., Chairman
522 Westlake Professional Building
2007 Wilshire Boulevard, Los Angeles

ROBERT FRANCIS KILE, M. D., Secretary
Stanford University Hospital, San Francisco

FIRST MEETING

Auditorium Building

Monday, April 25, 2:30 p. m.

1. *Secondary Radiation*—Professor Watson (California School of Technology), Los Angeles.

2. *Cholecystography*—R. G. Van Nuys, M. D., 434 Oakland Bank Building, Broadway at Twelfth Street, Oakland.

Literature of 1926 reviewed. Paper written not because of large number of cases followed through to operation, but to encourage roentgenologists outside the large clinics to use the intravenous method. This need not be a hospital procedure. Contentions are made that the smaller laboratories have more time and can better use intravenous method than the larger clinics. It is suggested that some observations may be made that are overlooked by the larger clinics. The choice of method should often be left to the roentgenologist. To bring about the finer aspects of diagnoses, more work must be done in establishing the normal. The test is in its infancy and progress can be looked for yet, so that the surgeon can rely upon the examination more fully than he can upon inspection and palpation at operation.

3. *Comparative Value of Gastrointestinal Series and Cholecystography in Diagnosis of Gall Bladder Disease*—John D. Lawson, M. D., Woodland.

Previous to the advent of the work of Graham, Cole, and Copher the diagnosis of cholecystic disease was entirely dependent on so-called secondary findings which were either organic or functional signs produced by gall bladder disease. The work of Law, Cole, George, Burnham, and others stressed very greatly the value of so-called secondary findings, while Carman, Moore, and others disputed the value of these findings. Following the advent of cholecystography we have had an impetus added to the radiological study of the right upper quadrant,

resulting in many varied statements as to the criteria of diagnosis and the value of diagnosis. In the opinion of the writer both methods of investigation are valuable and have their place in diagnosis. The report is based on a series of 500 gastrointestinal examinations by barium meal and 100 examinations of the gall bladder by cholecystography.

Discussion on above two papers opened by Charles G. Sutherland, M. D., Mayo Clinic, Rochester, Minn.

4. *Valuable Aid in the X-Ray Diagnosis of Intestinal Obstruction*—Kenneth S. Davis, M. D., St. Vincent's Hospital, Los Angeles.

Discussion opened by Harry H. Heylum, M. D., Long Beach.

When the slides are shown, the value of a "scout" roentgenogram in determining the site of obstruction can easily be seen. Unfortunately, as has already been stated, the procedure is valueless unless the obstruction is complete, for we do not find the markedly dilated intestine ballooned out with gas in those cases in which there is only a partial obstruction. In two of the cases in my series, the "scout" roentgenogram was negative, but the motor meal series showed an obstructive lesion in the small bowel. Cases of obstruction in very young infants apparently cannot be diagnosed by this method. There has only been one such case in my series, the roentgenographic findings being indeterminate for the site of the obstruction. Fortunately in this case the barium enema revealed the nature of the lesion—an atresia of the colon.

5. *Diagnosis of Tuberculous Cavities*—Merl L. Pindell, M. D., Olive View Sanatorium, San Fernando.

Discussion opened by Carl H. Parker, M. D., Pasadena.

1. All sizes of cavities, irrespective of their location, are usually diagnosed promptly by the roentgen ray. 2. Cavities heal more frequently than we formerly thought. 3. Annular shadows demonstrated on films of tuberculous patients are practically always due to cavitation, therefore all annular shadows present on such films should be considered cavities until proven otherwise.

SECOND MEETING

Auditorium Building

Tuesday, April 26, 2:30 p. m.

1. ——— Charles G. Sutherland, M. D., (Mayo Clinic), Rochester, Minnesota.

2. *A Closer Relation Between the Surgeon and Roentgenologist*—J. C. Robertson, M. D., 1003 Twelfth Street, Modesto.

Discussion opened by William T. Lum, M. D., Alameda.

An x-ray picture so called is not a picture, but a shadow. A shadow is proof merely of outstanding density of elemental substances. These shadows are formed by substances through which the rays do not penetrate entirely. To the roentgenologist they may mean a pathological condition, but he cannot visualize tissue as it is macroscopically. To the surgeon he is on the opposite side. He can visualize tissue not mal and pathological, but must have first-hand knowledge by the guiding hand of the roentgenologist to know the extent of disease by a mere shadow.

3. *Sphenoid Pathology from the Roentgenologist Standpoint*—D. Grant Clark, M. D., 1520 Chapala Street, and H. J. Ullmann, M. D., 22 Micheltorena Street, Santa Barbara.

Discussion opened by Robert A. Powers, M. D., Palo Alto.

Sinus infection is a frequent source of focal infection in cases of systemic disturbance. We believe the sphenoidal sinuses are commonly involved with or without changes in the other sinuses, and that by the Granger technique the sphenoidal changes may be very accurately demonstrated by the roentgen ray.

4. *Ossifying Hematoma* (An Illustrative Case)—James B. Bullitt, M. D., Garden City Bank Building, San Jose.
Discussion opened by R. G. Taylor, M. D., Los Angeles.

The case: A high school boy of 18 received a heavy blow (probably a kick) on inner side of femur just above condyle. Pain and swelling immediately, followed by hard bonylike tumor in one month's time. Tumor movable, partly fixed, as though hinged. X-ray showed bony tumor mass, of irregular density, lying in soft tissues in inner side of femur, and attached to femur for distance of two inches. Surgical removal showed irregular bony mass lying in soft tissues and attached to inner border of femur. Myositis ossificans circumscripta, rider's bone, ossifying hematoma—related processes; the latter found almost exclusively in athletes following a single violent trauma. Theories of production of myositis ossificans circumscripta—the formation of bone in general in soft tissues not directly derived from bone or periosteum.

Limitations of ordinary roentgen studies of the heart (roentgenogram, orthodiagram, teleroentgenogram). For exact diagnosis of valvular lesions we need information concerning volume changes in the various chambers of the heart. Practical skiagraphy, the graphic analysis of movements of heart borders, has been made possible by the roentgen cinematograph of Ruggles.

5. *X-Ray Studies of the Heart Beat*—W. Edward Chamberlain, M. D., Stanford University Hospital, Clay and Webster streets, San Francisco.

THIRD MEETING

Auditorium Building

Wednesday, April 27, 2:30 p. m.

1. *Radiation Therapy in Hyperthyroidism*—William E. Costolow, M. D., 1407 South Hope Street, Los Angeles.

Discussion opened by John W. Crossan, Los Angeles.

The success of radiation therapy in thyroid disease depends upon the proper selection of cases. Nontoxic goiters and toxic adenomata should be treated surgically. The so-called exophthalmic type (hyperthyroidism) should receive radiation therapy. The consistent reports from clinics throughout the world prove the results in these cases to be as good as the best surgical results and without mortality.

2. *Lymphoblastoma*—Harold B. Thompson, M. D., Seattle, Washington.

Discussion opened by W. Edward Chamberlain, M. D., San Francisco.

Review of literature relative to frequency and unusual manifestations. Deductions from author's series of twenty-four cases. Conservative radiation therapy compared to extensive surgical procedures. Case reports showing unusual distribution of lesions in lymphosarcoma and unusual reaction to x-ray therapy in Hodgkin's disease. Conclusions.

3. *Bone Tumors*—William B. Bowman, M. D., Brockman Building, 520 West Seventh Street, Los Angeles, and Lowell S. Goin, M. D., 400 South Kenmore Avenue, Los Angeles.

Discussion opened by Lloyd Bryan, M. D., San Francisco.

1. Origin of the tumor. 2. Presence or absence of bone production. 3. Condition of the cortex. 4. Invasion of adjacent tissues.

UROLOGY SECTION

H. A. ROSENKRANZ, M. D., Chairman
1024 W. P. Story Building, 610 South Broadway
Los Angeles

SPENCE DE PUY, M. D., Secretary
532 Fifteenth Street, Oakland.

FIRST MEETING

Auditorium Building

Monday, April 25, 2:30 p. m.

1. Chairman's Address: *Some Remarks on the Art and Science of Urology*—H. A. Rosenkranz, M. D., 1024

W. P. Story Building, 610 South Broadway, Los Angeles.

2. *Hemangioma of the Prostate*—Francis H. Redewill, M. D., Flood Building, San Francisco.

First reported case of this unusual condition. Microscopic pathology. Treatment unsatisfactory.

3. *The Surgical Prostate*—Louis Clive Jacobs, M. D., 462 Flood Building, 870 Market Street, San Francisco.

Surgical complications manifested in a review of 250 consecutive cases.

1. Postoperative hemorrhage: the prophylaxis against, blood examination, pharmacal and mechanical methods of prevention. Use of coagulating media. 2. Fistula: etiology, clinical course, treatment. 3. Epididymitis: incidence and treatment.

4. *Aberrant Renal Artery*—Franklin Farman, M. D., 709 California Medical Building, 1401 South Hope Street, Los Angeles.

A general discussion of the anomalies of the renal vessels, with report of one interesting case.

Discussion opened by Adolph A. Kutzmann, M. D., 403 Professional Building, 1052 West Sixth Street, Los Angeles.

SECOND MEETING

Auditorium Building

Tuesday, April 26, 2:30 p. m.

1. *Phleboliths*—James R. Dillon, M. D., 301 Medico-Dental Building, 490 Post Street, San Francisco.

A review of the x-ray films in the Stanford Hospital x-ray laboratory showing phleboliths, with a study of their relationship to urinary tract disease, from the complaint, history, symptoms, and examination of the patient. Literature and conclusions.

2. *Infection of the Prostate and Seminal Vesicles and Its Relation to Backache*—Miley B. Wesson, M. D., 1275 Flood Building, 870 Market Street, San Francisco.

Discussion opened by Thomas Stoddard, M. D.

Backache of interest to all who employ labor, as it is responsible for keeping up liability insurance premiums. Bony changes that have taken place in the spine cannot be repaired, but if the focus of infection responsible for the arthritis can be eradicated the pain will disappear, and the man can be put back to work. Urological investigation of large series of cases with low-back pains disclosed an infection in the genitourinary tract, and as soon as free drainage of the infection was established the backache disappeared.

3. *Unusual Urinary Calculi*—William E. Stevens, M. D., Flood Building, 870 Market Street, San Francisco.

The subject of urinary calculi has always been of interest to the physician. Report of an enormous coraliform calculus of the kidney without subjective symptoms. A case of bilateral giant ureteral calculi. False and true prostatic calculi. Multiple ureteral calculi. Calculi in the female urethra.

4. *Tumors of Bladder*—J. C. Negley, M. D., 819 Haas Building, 219 West Seventh Street, Los Angeles.

Resumé of cases treated by various methods at Los Angeles General Hospital. Value of different methods of treatment as resection, Percy cautery, surgical diathermy or fulguration, x-ray and radium.

THIRD MEETING

Auditorium Building

Thursday, April 28, 2:30 p. m.

1. *The Cause of Renal Back Pressure in Obstructive Lesions of the Urethra*—Henry A. R. Kreutzmann, M. D., 1195 Bush Street, San Francisco.

1. Hydroureter and hydronephrosis may occur as result of kinking of ureters by vas deferens. 2. Obstructive lesions of bladder neck most common cause upper urinary tract dilatation. 3. Reflex not uncommon and not a primary phenomenon of prostatic hypertrophy and ureteral stricture.

2. *Renal Surgery: Its Pitfalls and Complications*—Charles P. Mathé, M. D., 844 Phelan Building, 760 Market Street, San Francisco.

Study of following complications for the purpose of preventing them and lowering the mortality. Shock, hemorrhage, phlebitis, embolus, fistulae, infection of renal fossa, uremia, anuria, myocardial complications, peritonitis and pneumonia.

3. *Jaundice Caused by Movable Kidney*—Albert J. Scholl, M. D., 721 Pacific Mutual Building, 523 West Sixth Street, Los Angeles.

Transient attacks of jaundice may be caused by movable kidneys. They are probably dependent upon the dragging of folds of peritoneum on the

duodenum or common bile ducts, direct pressure on the biliary system or from a perinephritis which involves liver and ducts.

4. *Ourselves*—G. Shearman Peterkin, M. D., 1102 Cobb Building, Seattle, Washington.

A thesis the subject of which is, "Are we scientists who, as producers of scientific knowledge in the form of skilled intelligence, are selling our knowledge to the buying public; or, are we simply members of a profession who, still hypnotized by iron-bound customs and moss-covered traditions of the past, believe we are superior to our fellow-man, therefore they should accept that which we see fit to dispense?"

Entertainment

Motion Picture Program

Auditorium, Pacific Mutual Building

Monday and Wednesday Evenings, 7:30 p. m.

"Life of Pasteur." Six reels dealing with the life and discoveries of this noted scientist. This film is the gift of the French Government to the United States Department of Agriculture and loaned to us for use at this meeting.

"Pathology and Classification of Gastric Ulcer" and "Pulmonary Tuberculosis," two films by Lewis Gregory Cole of New York City dealing with the above subjects from the standpoint of physicians, surgeons, pathologists and roentgenologists. These films are said to be some of the best motion pictures made.

"New Ways for Old," a treatise on the prevention of diphtheria, depicting developments in the care of diphtheria that are typical of the progress of medicine. "One Scar or Many," the story of vaccination prepared under the supervision of Dr. M. J. Rosenau, Professor of Preventive Medicine at Harvard University. Both of the above films loaned to us by the Metropolitan Life Insurance Company.

"Interstate Postgraduate European Assemblies of 1926" illustrates this method of postgraduate study. The 1926 tour included clinics at Paris, Rome, Milan, Padua, Pisa, Bologna, Florence, Zurich, Berne, Munich, Vienna, Prague, Berlin, Amsterdam, Leyden, Utrecht, the Hague, and Brussels. The following Californians accompanied this tour. Dr. Newell H. Bullock, San Jose; Dr. Ruby L. Cunningham, Berkeley; Dr. Rubie M. Durgin, Berkeley; Dr. T. B. W. Leland, San Francisco; Dr. Clarence E. Reed, Redding; Dr. F. E. Sohler, Healdsburg; Dr. Henry Snure, Los Angeles.

"Posture," a two-reel picture made under the supervision of Dr. Armin Klein at the posture clinic of the Massachusetts General Hospital. A film intended for physicians, physical education teachers, athletic directors, recreation leaders, etc. This film loaned to us by the Children's Bureau of the United States Department of Labor. Their latest release, "Sun Babies," will also be forwarded to us if completed in time for the meeting.

"The Science of Life," one of the most expensive scientific films ever produced and used often by the American Medical Association. Produced under the direction of the

Surgeon-General, United States Public Health Service. The most advanced knowledge, skill and equipment have been used unsparingly in its production with outstanding success. As an instructional motion picture it establishes a new high standard of achievement. As a contribution to general health education it is incomparably valuable. Don't miss this one, a *whole medical meeting in itself*.

These films will be shown in two evening sessions, approximately three hours each, by Henry Snure, M. D., Los Angeles. Program will begin promptly at 7:30 p. m. No discussion permitted. Ladies welcome.

Entertainment Features

The annual banquet will be given in the ballroom of the Hotel Biltmore on Thursday evening of the convention week, and it is hoped will bring the days of the scientific program and sightseeing activity to a charming close.

This banquet will be not so much a formal dinner, as a supper dance. Members who were present at the last Los Angeles meeting will remember the jolly atmosphere of the informal entertainment and dancing. We hope the 1927 dinner dance will be even more pleasing.

There will be no speeches, but it is hoped to have as many as possible of the living ex-presidents of the California Medical Association at President McArthur's table.

Visiting members will be given the first preference for tables and seats; they should sign the application book and secure seats not later than 6 p. m., Tuesday. On Wednesday morning the sale of tables and seats for Los Angeles city members will begin. Los Angeles City members can, however, pay for their reservations on Monday and Tuesday and secure their tickets on Wednesday and Thursday.

It is planned to have several auto trips, and arrangements will be made to visit one or more of the movie studios.

The time and place of fraternity and college alumni banquets will be announced on the bulletin boards and in the daily convention bulletin.

Women's Reception Committee

Executive Group

Mrs. WILLIAM T. McARTHUR, Chairman

Mrs. Robert V. Day
Mrs. William Duffield
Mrs. Donald J. Frick
Mrs. Hill Hastings

Mrs. William H. Kiger
Mrs. George H. Kress
Mrs. Theodore C. Lyster
Mrs. Peter R. McArthur
Mrs. Robert P. McReynolds

Dr. J. Margaret Roberts
Dr. Eleanor Seymour
Mrs. Harlan Shoemaker
Mrs. Clarence G. Toland

The City of Los Angeles

LOS ANGELES is notable among cities of the world for its beauty, its magical growth in population and commerce, its happy, energetic people and their vision in planning for its future.

It is one of the most typically American communities in the land today. Its residents come from the best elements in various sections. Many have had success elsewhere. All bring judgment gained in past experiences. They represent the Main Streets of the United States.

Every state in the Union has proud sons and daughters taking active part in the development of the young metropolis on the western shore of their country. Their varied contributions in education, finance, art, science, business and plain straightforward work, are of inestimable value. The rosters of the great local state societies reveal names well known in former homes. These families made history in staunch old New England, in the chivalric South, in the substantial Middle and Central states and the Western states of pioneer days, and now their descendants are making modern history on the Pacific Coast the last frontier.

In 1781, twelve years after Padre Junipero Serra founded the Mission San Gabriel Archangel in the San Gabriel Valley near by, 141 colonists from Mexico settled here and named the village La Ciudad de Nuestra Senora la Reina de Los Angeles, The City of Our Lady the Queen of the Angels. Half a century later there were but 770 inhabitants. At the end of 1926 there were 1,300,328 within the city limits. Los Angeles had grown from a pretty pueblo to a great city. Its metropolitan area is 434.22 square miles.

Apropos of the above paragraph, an excerpt from an illustrated article in the *Los Angeles Express* of March 22, 1922, may be of interest because it sheds additional light on how Los Angeles came to receive its original name.

"The Church of St. Francis in the Italian city of Assisi and Los Angeles seem to be a far cry apart, the one unrelated to the other, geographically, historically and racially, and yet, with the exception of race, the two are closely related, for the Italian Our Lady the Queen of the Angels of the Portiuncula is the godmother of Our Lady the Queen of the Angels of the Portiuncula, short-named to our own Los Angeles.

"And if one would envisualize the scene that met the eyes of the Franciscan padres as they trod what was to become the famed King's highway when they bestowed the name on this locality, this may be achieved, paradoxical as it may appear, in one of the English etchings at the international salon of the print makers now being held in Exposition Park. For W. Wesley Manning's etching, 'The Church of St. Francis of Assisi,' shows the god-mother church for which Los Angeles was named and also the marked resemblance of the plain of the Portiuncula adjoining the little town of Assisi to the San Fernando Valley as seen from what is now the North Broadway entrance of Elysian Park.

"The Portiuncula River meanders down just such a valley as does our own much-maligned Los Angeles River, and it was because of this resemblance, and because the padres arrived in what is now Los Angeles on the eve of the indulgence of the Portiuncula in 1769, that Los Angeles was given the name of Our Lady the Queen of the Angels of the Portiuncula, and the river was christened the Rio Portiuncula, being known by that name until the arrival of the gringos, who changed it to the more easily pronounced Los Angeles River."

Its commanding position at one of the world's cross-roads points is chiefly responsible for the city's swift development as a commercial center. Great have been the efforts of men here, but nature did more in the beginning. Foreign trade through the harbor was about doubled last year. Domestic commerce increased with similar rapidity. People poured in at the rate of 10,000 a month.

More than ever must be done to meet the demands made by these sudden gains in business opportunities and

population. What has been lately accomplished is tersely set forth hereafter.

Building

Last year 37,478 building permits were issued, aggregating \$123,006, 215.

Only four cities surpassed Los Angeles. They were New York, Chicago, Detroit, and Philadelphia.

Many of the downtown buildings erected are notably handsome and artistic. The new churches, theaters, and clubs are distinguished for their architecture. Los Angeles homes are noted for their smartness and elegance. The bungalows are charming and surrounded by blooming shrubs and flowers. Some large homes are palatial. Perfect residence types of various countries and periods may be seen, correct to the smallest detail.

Civic Center Plan

A magnificent plan for an immense cultural and administrative center has been completed. The engineers submitted and considered 875 sketches before making a decision.

A vast area is involved. The project is astounding in magnitude and entrancing in beauty. It involves twelve plazas, a vast passenger terminal, splendid esplanades, radial street arteries connecting with every main highway, east and west streets on grade and north and south streets depressed to eliminate entirely crossings. All public buildings will be assembled handsomely with many practical and artistic features, and made easily accessible from all points of the city and county. The historic old Plaza and Plaza church will become part of the prodigious new project. An old section of the city will be rejuvenated and glorified. The downtown traffic congestion will be greatly lessened by fitting this big center scheme into the colossal Major Traffic Plan which involves a \$100,000,000 expenditure and covers the entire city area of 415 square miles.

Large betterments included: Major Traffic Plan approved by vote of the people, to cost \$100,000,000 and first bond issue of \$5,000,000 to inaugurate plan authorized; a \$33,640,000 school bond issue voted and work started on 110 elementary schools and sixteen high schools; proceedings begun for erection of a \$7,500,000 city hall; and \$16,000,000 voted for extension of the city's municipal hydro-electric system.

Other important plans are being considered and will no doubt be perfected during 1927. Los Angeles is well aware of its future needs and determined to make adequate provisions for them.

Superb Climate

Nature has endowed it with a year 'round climate which makes it not only the mecca annually for millions of tourists, but ideal as a convention center. Situated as it is, in a state with almost as great a variety of climates as may be found in the world, it enjoys a happy medium between two extremes of heat and cold.

The thermometer rises to 100 degrees on an average of less than one day a year. There are on an average only twelve days a year when a temperature of more than 90 degrees is registered.

Southern California has more perfect days during the year for out-of-door sports than any other part of the country. Days of cloudless skies come and go; summer glides into winter without perceptible effort, and winter is heralded by a cloak of green, flung over the hillsides by the first rains of autumn. Mornings, evenings and nights are cooler, but delicate rosebushes, burdened with blossoms, are seldom touched by frost.

This equable year 'round climate, combined with the great variety of scenery in southern California, governed the selection of Los Angeles County as the center of the motion picture industry. Eighty-five per cent of the world's output of films are produced here.

Those visiting Los Angeles can, on almost any day in the year, find motion picture companies on location in



The heart of downtown Los Angeles. Half a century ago this part of the city was an orchard

or near this bustling metropolis and catch a glimpse of his or her favorite star. This alluring feature alone brings thousands of tourists to southern California. But Los Angeles holds out innumerable other lures to the vacationist.

Yachting and Fishing

Thirty miles off the coast lies enchanted Santa Catalina Island with its picturesque Avalon Bay, a magnificent hotel, a yacht club, golf club and many attractive homes. Excursion steamers ply regularly between the island and Los Angeles-Long Beach harbor, and great fleets of private yachts may be seen at all times, cruising across the intervening channel and around the island.

Catalina, with its sister islands of San Clemente and Santa Barbara, make up the world-famous chain of Channel Island so rich in old Indian lore and romance of early Spanish conquest. Southern California waters are the year 'round rendezvous of many eastern yachtsmen.

This great protected channel is also a veritable paradise for salt water fishermen. Frank Gray Griswold, in his book, "Some Fish and Some Fishing," tells of landing giant sea bass off the Catalina coast weighing 493 pounds, swordfish weighing 463 pounds, marlin or spearfish weighing 372 pounds, and tuna, yellowtail and albacore of varying weights. This channel is one of only two places in the world where tuna are to be found.

Public Beaches

Of southern California's 274-mile coast line, 85 miles lie in Los Angeles County. Nine-tenths of the county's population lives within 30 miles of the ocean.

Extending from north to south along the county's coast line are many attractive little cities. Santa Monica spreads over the foothills of the mountain range which bears its name, and commands a superb view of the mighty Pacific. This city, with Ocean Park and Venice, comprise the Bay District cities, world famous for their pleasure piers and miles of public beaches. The Coast Highway, running from the Canadian to the Mexican borders along the Pacific Ocean, connects these cities with Playa del Rey, El Segundo, Manhattan Beach, Hermosa and Redondo.

Further south Palos Verdes rears its rolling terrain to command an excellent view of the Pacific. Behind it lie the great guns of the coast artillery at Fort McArthur.

A World Port

Los Angeles years ago sensed the destiny it was to fulfill, and reaching out over the 20 miles between itself and the harbor district of Wilmington and San Pedro, joined hands with those cities and its sister city, Long Beach, in constructing one of the world's finest ports, which now ranks second among American ports, in point of cargo landed.

This great man-made harbor is not only the gateway of the Pacific Southwest to world markets, but it is the home of Uncle Sam's mighty armada of battleships in the Pacific.

Long Beach, in addition to its bustling harbor and industrial district, has miles of public beaches and its "Pike" is world famous for its amusement devices.

Artist's Paradise

Still further south along the coast line, and nestling in a cluster of picturesque mountains is Laguna Beach, noted for its artist colony. Along its sandy beach and among its rugged crags one can always find some of the nation's foremost wielders of brush and pen at work.

Close by is the Mission of San Juan Capistrano, rich in the lore of early Spanish days. Picturesque Lake Elsinore nestles between two neighboring mountain ranges, on the inland route between Los Angeles and San Diego.

The Sierras

Tiring of beach scenery and aquatic sports, one can travel within an hour's time, to the very feet of the towering Sierra Madre through whose wooded fastness wind

miles of motor highways, bridle paths and hiking trails. Within the confines of this mighty range which stands as an eternal challenge to the prowess of youth, millions of people can play without disturbing their own silence.

Oranges and Snow

While these towering peaks are cloaked in snow, the fertile valleys spread at their feet are green with the great variety of crops which the southland boasts. In these intensively cultivated valleys one can see at any time of the year, orange trees blooming and bearing at the same time. Here also oil derricks rear their gaunt forms skyward between symmetrical rows of citrus trees, drawing from the very bowels of the earth that "black gold" which rivals in production and value the golden fruit which makes California famous.

Golf and Tennis

Scattered throughout southern California and within convenient distance of Los Angeles are forty-two golf courses with grass greens and fairways. Facilities are also provided at the numerous country clubs for tennis, polo and other out-of-door recreations. The equable climate of the sunny southland permits year 'round participation in all these sports.

From Pasadena, "the city of millionaires," one can travel by interurban to Alpine Tavern on Mount Lowe, or by stage or automobile to Mount Wilson. Mount Lowe is world famous for its incline railway which connects Rubio Canyon with Echo Mountain, where an observatory, open to the public, is located. Mount Wilson, on whose wooded crest stands a tavern to which thousands of motorists and hikers journey annually, is also famous for the Carnegie Institute solar observatories located there.

Camps and Parks

Picturesque canyons extend into the mountains from Arcadia, Sierra Madre, Monrovia, Azusa, Glendora and Claremont, through which runs Foothill Boulevard.

Los Angeles County owns numerous public parks where campers are provided with every possible comfort. McClellan Park, a 5640-acre tract on the northern slopes of the San Gabriel range, is now open to the public. Every city in the county maintains parks and camp grounds for the benefit of visiting motorists.

Los Angeles City itself possesses a park system of which it is justly proud. In all it owns forty public parks aggregating 4470 acres. Griffith Park, located in the mountains between Los Angeles and Glendale, has many miles of scenic drives which are a constant source of pleasure to motorists and hikers. Here the city maintains a number of excellent golf courses.

Exposition Park, containing the State Exposition buildings, the Coliseum, the Museum of Science and Art, and the famous Sunken Gardens, is renowned for the historical and art collections its buildings house, as well as the athletic and community events staged in the Coliseum.

Southwest Museum, housing still another collection of scientific materials, stands on a hill overlooking downtown Los Angeles and Scyamore Grove with its collection of trees contributed by every state in the Union. Here the various State Societies of Los Angeles hold their reunions and picnics regularly throughout the year. Westlake, Echo and Lincoln parks provide boating and canoeing facilities. The latter contains a conservatory housing an excellent collection of plants from all over the world. Elysian Park, in the heart of the city, is noted for its flower-bordered drives.

With well justified pride in its superb all-year climate, Los Angeles has erected in Exposition Park a great Coliseum capable of seating 80,000 people. In it the 1932 Olympic Games will be played. It is also the scene of many community events during the year and here a capacity crowd gathers each Easter morning to greet the sunrise with appropriate services.

Nestling in the picturesque hills of Hollywood, world-famous motion picture center, is Hollywood Bowl, a na-



Midwick Country Club, one of many near Los Angeles, on whose grass greens Angelenos play golf the year 'round

tural amphitheatre, which is the scene of open-air symphonies throughout the year and an impressive Sunrise Service each Easter. Close by in another natural amphitheatre the Pilgrimage Play—the Oberammergau of America—is staged annually.

In Pasadena is the famous Tournament of Roses Bowl, the scene of many open air events, principally among which is the annual East and West football championship game, played at the close of the Rose Parade each New Year's Day.

Early Romance

The Mission Play, the product of the pen of John Steven McGroarty, is staged throughout the summer months at San Gabriel near Los Angeles, in the shadow of the old San Gabriel Mission. It depicts the early struggles of the Franciscan monks under Fra Junipera Serra to plant Spanish civilization on Pacific shores. It teaches the tourist the true significance of such immortal names as Don Gaspar Portola, Juan Rodriguez Cabrillo and others whose lives are linked inseparably with the colorful history of California.

El Camino Real, or "The King's Highway," linking together in one romantic chain the Missions from San Diego to Sonoma, traverses the length of Los Angeles County and joins within the confines of this miniature empire the missions of San Gabriel, Los Angeles, and San Fernando.

Los Angeles boasts an array of theaters rivaling in architectural beauty, those of any other city. Its Chinatown with its weird Oriental customs and ceremonies, is a constant source of interest to tourists.

To the sport fan Los Angeles offers year 'round auto races at Culver City and Ascot speedways. It is also well equipped with baseball grounds, many major league teams maintaining winter training quarters in the vicinity of the city.

Cawston ostrich farm, two alligator farms, Seelig's Zoo, and Gay's lion farm in El Monte, near Los Angeles, are always a source of interest to visitors.

What wonder then that Los Angeles, with such an array of points of interest, is the mecca annually for millions of tourists and the ideal center for conventions of all kinds.

Hospitals and Health Agencies of Los Angeles City and County

The Angelus Hospital is located at 1925 Trinity Street (at Washington) and was organized in 1905. Has a capacity of 120 beds. Surgical and obstetrical cases comprise the bulk of the service. The superintendent is Miss Marie A. Wooders. The staff is an open one, made up of members of the Los Angeles County Medical Association and those eligible to same.

The Barlow Sanatorium is located at 1301 Chavez Ravine Road, Los Angeles. It consists of nine central service buildings, including infirmary, recreation hall and library. Seventeen modern four-room cottages and five two-room cottages for patients; number of beds, eighty. Only early cases of pulmonary tuberculosis are admitted. The staff officers are: W. Jarvis Barlow, M. D., director; Munford Smith, M. D., medical director; and P. J. Byrne, M. B., Ch. B., resident physician, to whom applications for admission should be made. Nursing School: Three and four-month courses are given to postgraduate nurses and affiliates from general hospitals.

The California Lutheran Hospital, 1414 South Hope Street, invites Convention visitors to inspect its new, modern, nine-story, 300-bed hospital building. The top floor is of special interest, having seven operating rooms, a cystoscopy department, a large diagnostic x-ray department under direction of Henry Snure, a 'deep therapy department conducted by Albert Soiland, and a complete clinical laboratory operated by Doctors Brem, Zeiler, and Hammack. This hospital is successor to the well-known California Hospital established in 1897 by Walter Lindley, W. W. Beckett, F. T. Bicknell, W. W. Hitchcock, M. L. Moore, E. R. Smith, and other pioneers in medicine and surgery in southern California.

French Hospital of Los Angeles—This institution is located at 531 College Street and was founded March 1, 1860. It owns four buildings, with a capacity of seventy-five beds. Medical, surgical and obstetrical departments are all kept up to proper standards. Mrs. Y. Clos is the superintendent.

The Hospital of the Good Samaritan, Wilshire Boulevard, between Witmer Street and Lucas Avenue was



Mulholland Dam in Hollywood, part of the Los Angeles Aqueduct System

founded in 1887. New building opened April 15, will give total capacity of 375 to 400 beds. A general medical, surgical and maternity hospital. Maintains a School of Nursing. Mrs. Horatio Walker, Jr., superintendent. The hospital is conducted under the auspices of the Episcopal Church.

Hollywood Hospital is one of the new fireproof hospitals of Los Angeles staffed with a carefully selected staff of members of the County Medical Association, having eight operating rooms, three delivery rooms, and x-ray department equipped with diagnostic and deep therapy machines, a newly furnished laboratory, a complete physiotherapy department. The rates are for the average case and extras are eliminated as far as possible. They are from \$4.50 to \$15 per day. The new wing, almost completed, will more than double the accommodations.

The Kaspere Cohn Hospital, 3942 Whittier Boulevard, Los Angeles, a constituent unit of the Federation of Jewish Welfare Organizations, was organized and incorporated in 1902. The two-story and basement brick building has a bed capacity of sixty-five beds. Dr. A. Tyroler is chief of staff, Dr. Oscar Reiss, secretary; Mrs. Kathryn Meitzler, superintendent of hospital. There is no training school in connection with the present plant, but a nurses' home is provided on the grounds for graduate nurses employed. Plans are under way for the erection of a new hospital on Fountain Avenue, Hollywood, with an ultimate capacity of 400 beds.

Las Encinas, Pasadena—Las Encinas is a sanitarium for the treatment of medical, nervous and convalescent patients, especially those with chronic illnesses. Las Encinas is Spanish for The Live Oaks, of which there is a fine grove on the grounds. An attractive, illustrated booklet has been prepared detailing the facilities for treatment. Customary treatment makes use of all therapeutic measures approved of by ethical physicians. Cottages as well as private rooms in the "main building" are available, so that rooms may be had en suite or singly, for patient alone or for family as well. Visitors are welcomed, especially any from out of town who may be in Los Angeles for the state meeting. Drive east on Colorado Street in Pasadena to San Gabriel Boulevard. Las Encinas is at 2906 Blanche Street, Pasadena.

Lincoln Hospital, 453 South Soto Street, Los Angeles, is a hospital pleasantly situated in the Boyle Heights section of the city. It was founded in 1904 under a bequest or trust that is ably administered by a group of unselfish

business men. The institution was formerly known as the German Hospital. The medical and surgical services are under the charge of Drs. P. Newmark and Carl Kurtz. The hospital has a capacity of thirty-five beds. It is open to all doctors eligible to membership in the A. M. A. The hospital maintains a resident physician. The superintendent is Mrs. Janie O'Neill.

Long Beach Community Hospital—Community Hospital of Long Beach opened its doors August 1, 1924. The slogan has been to give efficient service at cost. The hospital is located on a hill giving a view of both the mountains and the ocean. It is a mission style edifice which harmonizes in every respect with its surroundings. The buildings are constructed of concrete and tile, making it a Class A construction, having a capacity of 125 beds. The executive staff is composed of twelve doctors, with a visiting staff of 200 doctors. Miss Elsie Peacock is the superintendent.

The Los Angeles General Hospital, at 1100 Mission Road, near Lincoln Park, in the city of Los Angeles, founded in 1878, is the Los Angeles County Hospital for the acutely ill (as distinguished from the other county hospitals for the chronic at the County Farm, and for the tuberculous at the Olive View Sanatorium). This hospital cares for 1100 in-patients daily, and for more than 100,000 out-patient visits annually, under the provisions of that section of the state law commonly known as the Pauper Act. The present investment is approximately three and one-half millions of dollars, with some fifty buildings on a thirty-five acre site. It has the largest School of Nursing of any single hospital in America, enrolling at the present time 306 student nurses. The contracts have been let for the excavation and for the steel of a strictly modern acute hospital unit of 1600 beds to cost approximately \$8,000,000, to be built on the commanding site east of and overlooking the present hospital. The attending staff of the hospital includes some 200 of the leading physicians and surgeons of Los Angeles County, in addition to a house staff of some sixty interns, and twenty resident physicians. The management of the hospital will be glad to extend all possible courtesies to members of the California Medical Association who are attending the fifty-sixth annual session, and who would be interested in making a visit to this very large institution.

The Methodist Hospital of Southern California at Los Angeles is a general hospital accommodating 225 adult patients. It is a strictly nonprofit organization, as

it is owned and operated by the Woman's Home Missionary Society of the Methodist Episcopal Church. The building is absolutely modern and fireproof throughout. A full-time resident roentgenologist and pathologist are employed by the hospital, making the service of these departments, as in the others, very complete. Among the newer developments are the out-patient clinic and the physiotherapy department which are meeting a long-felt need.

Monrovia Hospital was founded August 8, 1912. Is situated at the corner of Heliotrope and Lime Avenue, Monrovia. The hospital includes three buildings, one of which is the nurses' home. It accommodates both medical and surgical cases. The superintendent is Miss Mamie Haben.

The Murphy Memorial Hospital is situated in Whittier, fourteen miles from Los Angeles. The building was a gift from the late Col. Simon J. Murphy, in 1921, being of reinforced concrete fireproof structure. It is situated in a park of about eight acres, with commanding view and beautiful surroundings. It is a 100-bed hospital, with medical, surgical, and obstetrical service. It is owned and operated by the city of Whittier, whose City Council appoint the hospital board of directors, who in turn are in charge of appointment of staff and executives. Only graduate registered nurses are employed. The superintendent is Miss Susan G. Parish.

The Orthopedic Hospital-School is located at 2400 South Flower Street, Los Angeles. Its main hospital was completed in April, 1922, bed capacity seventy-five. The medical and surgical services of its staff are restricted to orthopedic cases exclusively. The educational part of the work is furnished by the Los Angeles Board of Education. The institution is conducted by the Los Angeles Orthopedic Foundation, incorporated, to work without profit for crippled children. Mr. Preston T. Slayback is business executive. The out-patient and clinic department is conducted by the Crippled Children's Guild, an organization established for social service work for crippled children in 1913.

Pasadena Hospital Association was incorporated as a nonprofit corporation in 1892. The hospital has capacity for 244 patients, and is located at Fairmont and Congress streets. It is a limited general hospital, taking everything except infectious diseases. There are large surgical and maternity departments; and a very large endowment fund is efficiently administered through a social service department who investigate and pass on all welfare cases. An excellent nursing school is run in connection with the hospital. Mr. Joseph P. Howe is president of the Board of Directors and Mr. Wallace F. Vail is manager. Miss June Ramsey has charge of the Nursing School. The hospital is approved by the American College of Surgeons. There are thirty-two members on the senior staff. The feeling of all the groups in the hospital is that the patient comes first, and the motto of the hospital is "Service With a Smile."

The Pottenger Sanatorium for Diseases of the Lungs and Throat, Monrovia, California, has been caring for patients for twenty-three years. Its capacity is 138. While it is desirable to treat tuberculosis early, when nearly all can get well, yet the institution has never closed its doors to anyone who can be benefited. All accepted scientific measures are used—heliotherapy, tuberculin, pneumothorax, rest, and exercise carefully adjusted to each individual—and the closest personal attention is given. The psychical side of the patient is given full attention.

Queen of Angels Hospital, 2301 Bellevue Avenue, Los Angeles, was founded in October, 1926, and is conducted by the Franciscan Sisters of the Sacred Heart, Sister M. Luitgardis, superintendent. The main building is fireproof. One hundred and ten beds, all outside rooms, no wards. The hospital is completely equipped for diagnosis of both medical and surgical diseases and injuries. The staff is in process of formation. The School for Nurses in connection with the hospital is governed by the rules and regulations of the California State Board of Health.

Santa Fe Hospital, Los Angeles, California, owned and operated by the Santa Fe Coast Lines Hospital Association, Sixth and St. Louis streets. Built 1904. A general hospital of 130 beds, primarily for the care and treat-

ment of employees of the Santa Fe Railroad Coast Lines. All types of cases are cared for except obstetrical, mental and infectious. There is a closed staff of thirty-five members, and an associate staff of recommended physicians and surgeons. All graduate nurses.

Seaside Hospital of Long Beach was founded in 1907. It is located at Fourteenth Street, between Chestnut and Magnolia avenues, Long Beach. Seaside Hospital is a general hospital of 178 beds. All classes of cases are cared for with the exception of contagious, infectious, and mental diseases. It has all modern facilities. The surgery is spacious and well equipped. It has a closed staff. The Seaside Hospital School of Nursing was organized in 1918, and is accredited in California. The school facilities are excellent, and the number of students is eighty.

White Memorial Hospital, located at 312 North Boyle Avenue, Los Angeles. Founded, 1917. Ten stucco frame buildings, one and two stories. One hundred and eight beds. General rotating medical, surgical, and obstetrical intern service. Resident staff in medicine, surgery, obstetrics, pediatrics, and pathology. Out-patient department, 250 to 500 daily patient visits. Dr. P. M. Keller is chief of staff. Dr. Ethel Andre, secretary. Conducts school of nursing, three-year course, eighty students. The superintendent is Dr. H. E. Butka.

There will be a reunion of the officers of the Sanitary Train of the Fortieth Division at the University Club, 514 South Hope at 6 o'clock on the Wednesday evening of the state convention. Any who are interested, kindly get in touch with Dr. Lewis D. Remington.

CONVENTION CLINICS

A program of clinics to be held in Los Angeles and vicinity during the state convention is being compiled.

The Clinical and Statistical Section of the Los Angeles County Medical Association is publishing a daily bulletin in which is listed the medical, surgical, and special work carried on in the various hospitals of this city.

These programs will be available at the convention headquarters, the Biltmore Hotel, and at all listed hospitals. In this way each doctor will have a complete program of the next day's clinics.

The clinics during the convention week, so far as practicable, will start at 7:30 a. m. and finish at 9:30 a. m. in order that visitors may attend the convention at 10 a. m.

Programs will be presented by representative men at the following hospitals, clinics, and sanitariums: The Angelus Hospital, California Lutheran Hospital, Banksia Place Sanitarium, Eye, Ear, Nose, and Throat Hospital, Los Angeles General Hospital, The French Hospital, Hollywood Clara Barton Hospital, Hospital of the Good Samaritan, Los Angeles Maternity Service, Methodist Hospital, Orthopedic Hospital, Radium and Oncologic Institute, White Memorial Hospital, Soiland's Radiologic Clinic, Santa Fe Hospital, and Roosevelt Hospital of Los Angeles; The Pasadena Hospital of Pasadena, and the St. Mary's Hospital and Wright's Eye, Ear, Nose, and Throat Hospital of Long Beach.

The location of these various hospitals, best street-car routes to same, approximate time to allow for the trip, etc., will be posted at the registration desk.



Los Angeles is within an hour's ride of eighty-five miles of beaches

THE COMMERCIAL EXHIBIT

Dr. William R. Molony, chairman of the subcommittee on Commercial Exhibit, announces that all of the attractive and central space arranged at the Biltmore for this exhibit has been spoken for by the advertisers in CALIFORNIA AND WESTERN MEDICINE. Only advertisers in our magazine are permitted to have exhibits at the annual meetings, and such exhibits are always a source of interest to members and visitors. This year a general invitation was extended by the editor to all such advertisers as cared to accept the opportunity, to give us a short advance news item about their exhibits, and the following have responded.

Bush Electric Corporation will be glad to greet the medical profession. Twenty-seven years of business association with the medical fraternity has been our allotment in life. We wish to avail ourselves of the opportunity on this occasion to announce our appreciation of your whole-hearted and sincere support during this time.

Your consideration has been the means of our gradual growth, whereby we are placed in a better position to serve than in the past.

Our Los Angeles store is now in full swing with a line of x-ray and physiotherapy equipment and here, as well as at the San Francisco store, we maintain a force of skilled mechanics and a shop adequately equipped to care for all kind of repair on electrical medical apparatus.

Certified Laboratory Products, Glendale and San Francisco, will demonstrate their Nitrous Oxide, Oxygen, Ethylene, Intravenous and Intramuscular Medications in ampoules, in an unique exhibit well worth visiting often during the convention. Mr. Waldo M. Winger will be in charge of the exhibit to explain the high quality and merits of the products of this concern.

Clark-Gandion Company, Inc., San Francisco, extend a cordial invitation to members of the California Medical Association to visit and inspect the merchandise which they will exhibit. Mr. and Mrs. Gandion, president and vice-president of the firm, will be in attendance to greet you and explain the merits of the articles of interest.

Your cooperation makes it possible for our staff to give professional service to your patients and the public, thus eliminating incorrect and improper fittings and sales of supports, braces, corsets and other corrective articles.

The Cutter Laboratory—The new hay-fever treatment set which does not require dilution before using and which contains an excess of solution for continuation of treatment throughout the season, when indicated, will be featured by the Cutter Laboratory exhibit. Their highly purified poison oak extract "Toxok" will also be shown.

De Luxe Lamp Manufacturing Company, one of the largest therapy light manufacturing concerns in the United States is a California corporation. They have recently moved into their own factory on Long Beach Avenue, Los Angeles, fully equipped with modern machinery and appliances for the manufacture of therapeutical lighting equipment for doctors and hospitals. The large reflectors are hand-spun from flat sheets of aluminum, nearly a lost art in the United States. These polished reflectors have been popular with California doctors, thousands being in use, and De Luxe Lamps are shipped to all parts of the world.

Horlick's Malted Milk Corporation, Racine, Wisconsin, invite attention to their booth, where there will be on display the universally known Horlick's the Original Malted Milk, in powder and tablet forms, and also Horlick's Chocolate-Flavored Malted Milk. The representative in attendance will be pleased to explain the advantages of these various products, and will welcome inquiries and discussions. Samples and literature will be supplied, and the Dumore Electric Mixer will be demonstrated.

The Kelley-Koett Manufacturing Company has recently opened a direct branch office in the California Medical in Los Angeles under the supervision of Mr. G. E. Magee, a factory-trained man.

There will be a display of the new Portable X-Ray

Unit, Mobile Diathermy Machine, Buckey Diaphragm, and many other pieces of equipment of interest to the profession, both at the display booth and also on our display floor.

Keniston-Root Corporation—Of special interest to the medical profession at this time is correct diagnosis. Scientific apparatus for assisting the physician may be seen in the Taylor Instrument Company's Recording Syphygmomanometer and the Toledo Technical Company's McKesson Recording Matabolar.

These and many other valuable instruments of recent development will be displayed in the exhibit of the Keniston-Root Corporation. Their booth will be found in charge of our old friend Sidney Root.

Pacific Surgical Manufacturing Company—During Convention days one renews old friendships and enjoys a moment's relaxation from the rush of a busy world.

It is the wish of the Pacific Surgical Manufacturing Company and its representatives to have you visit their exhibit—make it your rendezvous. May your visit be a happy reunion.

Riggs Optical Company—Among others who are preparing to do everything possible for the success of the fifty-sixth annual session, the Riggs Optical Company are making extensive plans for the display of surgical instruments, specializing on those for the eye, ear, nose, and throat. In addition to the surgical and ophthalmological instruments, they will also show the newer models of equipment.

They also extend a welcome to the profession to make use of their office located in the Broadway Arcade Building, 542 South Broadway. Mr. Diederich, the local manager, desires personally to meet as many of his out-of-town friends as possible, and those associated with him will likewise be very glad to render any service that may be desired. They will be happy to assist in any way to make your visit to the city a pleasant and enjoyable one.

The R. L. Scherer Company will have on display the latest contributions to the armamentarium of the physician and surgeon developed by the Wappler Electric Company, as well as other manufacturers, including the new Wappler Monex X-Ray machine, a new departure in the design and construction of x-ray equipment. This is the machine in which the Wappler Company have succeeded in eliminating all moving parts, thereby providing an x-ray machine that is silent and requires a minimum amount of space and attention. Of interest also will be the display of Wappler High Frequency machines, with three models—the Portable Telantherm, Electrotherm, and the Excell—to select from. There will also be on display a complete line of surgical instruments.

The exhibit of the **Victor X-Ray Corporation** will feature their line of physical therapy apparatus including the new Portable Vario-Frequency Diathermy apparatus, with a capacity of 4000 ma. over a selective frequency range of from 500 to 2000 kilocycles; the Wantz Multiple Wave Generator, for the production of galvanic, surging galvanic and sinusoidal currents; the Sigmond Galvanic Controller; Air and Water-Cooled Ultraviolet Quartz Lamps; Phototherapy Lamps and Vibratory Massage Apparatus.

The trained representatives in charge of the Victor booths will cheerfully assist you in solving your technical problems involving either physical therapy or x-ray apparatus.

Doctors' Business Bureau—Strictly in keeping with the splendid service rendered to Association members exclusively by the Doctors' Business Bureau, they will have at the Convention an expert medical stenographer for the free use of delegates and members. It will be to the advantage of any doctor to call at their desk for first-hand information regarding their departmental business service. Their Collection Department now offers a new but proven system of direct collections. It is effective, economical, labor-saving, and nonoffensive. Other departments are Legal, Accounting, Income Tax, and Patients' Financial Ratings. Improve the business end of your practice. See them.

CALIFORNIA MEDICAL ASSOCIATION

W. T. McARTHUR.....President
 PERCY T. PHILLIPS.....President-Elect
 ROBERT V. DAY.....Vice-President
 EMMA W. POPE.....Secretary

ALAMEDA COUNTY

The regular meeting of the Alameda County Medical Association was held at the Ethel Moore Memorial Building, Monday, February 21, 1927. The program consisted of a symposium on the subject of allergy, which was prepared by Albert H. Rowe. Doctor Rowe read a paper on "Allergy in the Etiology of Disease." He emphasized the fact that allergy is being recognized as the cause of an increasing number of symptoms and that the diagnosis of protein sensitization must be made on the basis of careful history and from thorough skin testing. He prefers the cutaneous test over the intradermal in the diagnosis of this condition. Cases were cited in which allergy was the cause of abdominal pain, and he laid stress on the fact that any individual who has allergy either in the family, or in his own personal history, and who is suffering from indigestion or abdominal pain which is difficult to explain on the basis of a careful diagnostic study, should be investigated from the point of view of allergy. Eczema and dermatitis he believed in most instances to be due to protein sensitization most frequently of food origin. Migraine and epilepsy were pointed out as frequently of allergic origin, this point being illustrated by case reports. In seasonal hay fever individuals should be tested with a large variety of pollens, and with other types of proteins, in order to reveal potential sensitizations. It becomes progressively easier to control the seasonal hay fever as treatment is continued year by year, and many individuals eventually lose their skin reactions with such treatment. Perennial hay fever is most frequently due to animal emanation, proteins, orris root, and house dust sensitizations, but may be due to pollens. Bronchial asthma is more frequently due to animal emanation, house dust, food, and pollen protein sensitizations. Sensitization in the asthmatic is usually multiple, and the chronic case frequently has sensitization to pollens, animal emanation, and food proteins. Treatment must take into consideration all the sensitizations present, according to the author.

J. H. Templeton read a paper entitled "Sensitization Phenomena in Dermatology." In it he discussed sensitization to protein and nonprotein substances as etiologic factors in the production of the common dermatoses. He held that a carefully taken history was of great importance in determining the source of these offending agents. He recognized the value of percutaneous tests. They should not be regarded as a quick, easy, infallible method of arriving at a diagnosis, but rather as valuable aids in certain obscure cases. The study and practice of allergy is more difficult and of somewhat less value in dermatology than in other fields.

The last paper of the group was read by Clifford Sweet, who discussed "Allergic Manifestation in Children."

The scientific program was followed by refreshments and a social half hour.

GERTRUDE MOORE, M. D.



CONTRA COSTA COUNTY

The February meeting of the Contra Costa County Medical Society was held in Richmond, California, at the offices of Drs. Abbott and Hely, Saturday, February 26, 1927.

S. A. Jelte of Oakland gave a very instructive paper on the uses of "X-Ray and Radium Therapy." An interesting and beneficial discussion followed.

Leo P. Bell and D. S. Pulford of the Woodland Clinic were welcome guests of the society.

B. F. Sandow of Byron Springs, Ruth Burn of Concord,

and L. W. Wuesthoff of Richmond were voted into the society.

J. M. McCullough, president, appointed J. Beard of Martinez (chairman), D. C. Wise of Pittsburg, and G. W. Bumgarner of Richmond to act on the Legislative Committee for the Medical Society.

Refreshments were enjoyed following the adjournment of the meeting.

Present—J. W. Bumgarner, G. W. Bumgarner, J. Beard, H. Vestal, J. M. McCullough, Rosa Powell, H. L. Carpenter, C. E. Camp, W. A. Rowell, L. P. Bell, D. S. Pulford, S. N. Weil, W. E. Cunningham, L. St. John Hely, Miss Moore, R. N.; Miss Shroub, R. N.

S. N. WEIL, *Secretary*.



ORANGE COUNTY

HOWARD SAMUEL GORDON
1853-1927

Howard Samuel Gordon was born in Ray County, Missouri, August 11, 1853. He received his degree of Doctor of Medicine from the Kansas City College of Physicians and Surgeons of Missouri, 1878. After practicing in Missouri, Colorado, and Arizona he came to Westminster, California, in 1898. A short time later he removed to Santa Ana where he remained until 1919. He served for four years as secretary of the Orange County Medical Association and was president of the society in 1901. He transferred to the Riverside County Medical Society in 1920. Ill health compelled him to give up his practice some years before his death.

Whereas, A former member of the Orange County Medical Association Howard Samuel Gordon, died in Santa Ana, California, on Monday, January 24, 1927; and

Whereas, Doctor Gordon was respected and well loved by all his associates, therefore be it

Resolved, That we sincerely regret the death of our beloved associate, Howard S. Gordon; and

Resolved, That the sympathy of this association be hereby extended to the bereaved wife and family of our late confrère and that they be presented with a copy of this memorial; and

Resolved, That these resolutions and this memorial be inscribed in the records of the association.



SACRAMENTO COUNTY

A clinical evening at the Sacramento Hospital supplied the impetus for one of the best attended meetings of the year. It is interesting to note that this type of meeting, instituted three years ago, is rapidly becoming a byword among the members, and all look forward to it from year to year. A. K. Dunlap, superintendent of the Sacramento Hospital and vice-president of our local society, presided.

The minutes of the previous meeting were read and approved.

C. E. Schoff presented a case of arsenical poisoning, manifested by bleeding from the skin and mucosa. This hemorrhagic condition followed intensive antisyphilitic treatment with sulph-arsphenamine given intravenously. Between December, 1926, and February, 1927, the patient had had thirteen 0.6 grams sulph-arsphenamine injections. Three days later subcutaneous hemorrhages started in the region of the neck, armpits, mouth, and abdomen. Later there was bleeding in the eyes, ears, bladder, and lower bowel. Transfusion of 600 cc. of blood was given on February 9. Clotting time was four and one-half minutes, and the Wassermann was four plus. Seven injections of 1 gram sodium thiosulphate were given. The patient now shows marked improvement.

E. M. Wilder presented histories and pyelograms of four selected cases demonstrating the frequencies of renal syndromes simulating intra-abdominal surgical conditions. The discussion by Dunlap, Bell, and Topping emphasized differential diagnosis.

Hart presented a most interesting patient whose trouble began very insidiously. An x-ray picture of the patient's chest showed a thoroughly consolidated right upper lobe. A purulent, brown-stained, odorous sputum, and the obtaining of bloody fluid by puncture have persisted. Every effort to find *T. B. bacilli* has failed. The discussion

entered into by Bell, Scatena, O'Brien, Gundrum, Snyder, Howard, Drysdale, Thom, Pitts, and Yates considered the possibilities of tuberculosis, malignancy, unresolved pneumonia, and diagnostic aids by use of lipiodol injections.

F. N. Scatena showed a patient and his radiograms; having a peridartitis with effusion. The reason for this demonstration was to show the occasional difficulty of a conclusive x-ray finding in this clinical condition.

F. A. McDonald spoke on the treatment of cutaneous burns by means of a 2½ per cent aqueous solution of tannic acid. He compared this treatment with others and demonstrated the end results in a patient.

Applications—Applications for membership were read for the first time from Raymond M. Wallerius and Eva M. Shively. The second reading of the application of Louise M. Igo-Flitcroft was followed by a vote which showed her election to the local society.

Report of the Board of Directors announced the election of A. K. Dunlap as vice-president of the society, and the appointment of J. R. Snyder as chairman of the Annual Banquet Committee, and the appointment of the following Public Relations Committee: Bramhall (chairman), Cress, and Soutar.

With no further business to discuss, the meeting adjourned to a most delightful table provided by the hospital.

BERT S. THOMAS, *Secretary*.



SAN BERNARDINO COUNTY

Minutes of the meeting of the San Bernardino County Medical Society held March 1 at the County Hospital, San Bernardino, at 8 o'clock p. m.

Meeting was called to order by the president at 8 p. m. The minutes of the previous meeting were read and approved. No objection being received the following men were admitted to membership: Wilbur E. Kellum, F. S. Modern, Alden C. Thompson.

The program of the meeting was then entered upon: "Etiology of Appendicitis," by C. Van Zwalenburg. Discussion opened by C. L. Curtiss.

"Oral Administration of Tetraiodophenolphthalein Sodium as an Aid to Diagnosis in Diseases of the Gall Bladder," by Paul F. Thuresson. Discussion opened by Frank Folkins.

There were about twenty-seven present, seven of whom were guests.

Before adjournment C. L. Curtiss requested that fuller reports of the activities of the Council be made at each meeting.

Notice was given of the willingness of Doctor Scholts to hold a dermatological clinic at the meeting of the Southern California Medical Association in Redlands.

Meeting adjourned at 10:30 p. m.

E. J. ETYNGE, *Secretary*.



SAN JOAQUIN COUNTY

The stated meeting of the San Joaquin County Medical Society was held Thursday evening at 8 p. m., March 3, 1927, at the local Health Center, 129 South American Street. Thirty-eight were in attendance. Those present were J. W. Barnes, E. L. Blackmun, C. O. Bishop, J. F. Blinn, Winifred Biethan, C. A. Broadus, F. J. Conzelmann, J. T. Davison, J. F. Doughty, C. F. English, F. T. Foard, Percy Gallegos, L. M. Haight, S. Hanson, C. D. Holliger, H. E. Kaplan, Grace McCoskey, A. H. McLeish, W. T. McNeil, F. S. Marnell, F. J. O'Donnell, H. C. Peterson, D. R. Powell, D. F. Ray, G. H. Rohrbacher, F. B. Sheldon, J. J. Sippy, J. A. Smither, Margaret H. Smyth, Hudson Smythe, L. E. Tretheway, J. J. Tully, A. L. Van Meter, N. E. Williamson; and Doctors Bell, Larson, and Pulford of Yolo County Medical Society, visitors; and Eugene S. Kilgore, guest and speaker of the evening.

The meeting was called to order by Doctor Barnes, president, at 8:30 p. m. The chairman introduced and extended a welcome to the visitors from Yolo County.

The minutes of the previous meeting were read and approved.

The committee on admission reported favorably on the application for membership of C. O. Bishop of Linden.

In accordance with the constitution, the Chair declared C. O. Bishop duly elected an active member of the society.

The Chair announced that he had received a communication from the Community Chest officials of Stockton requesting to be permitted to send a speaker for the evening, but as all arrangements for the program of the evening had already been made the Chair wrote the officials of the Community Chest to that effect and stated that he would present the matter to the society and urge its members to give every aid and assistance possible.

The Chair announced the appointment of the Legal Committee to work in cooperation with the Legal Committee of the State Medical Association in the matter pertaining to bills coming before the legislature some of the bills aim at modifying the practice of public health to the community, and modifying the medical status of the Compensation Act. The members constituting this committee are J. J. Sippy, R. T. McGurk, Dewey R. Powell, Allen R. Powers of Tracy, California; and G. P. Cooper, Angel Camp, California.

Doctor Sippy stated that the Tuberculosis Association of California had made plans to meet in some city of northern California on Friday and Saturday, May 6 and 7, 1927.

Action—Moved by Doctor Sippy, seconded by Doctor Broadus, that an invitation be extended to the Tuberculosis Association to hold its annual meeting in Stockton on Friday and Saturday, May 6 and 7, 1927. Carried.

Moved by Doctor Sippy, seconded by Doctor Doughty, that the regular meeting in May, 1927, be held Friday, May 6, 1927, instead of May 5, and that the society meet with the Tuberculosis Association. Carried.

The secretary was instructed to send the letter of invitation, and the Program Committee to arrange for a suitable meeting place in the event the Tuberculosis Association comes for its meeting to the city of Stockton.

The chairman presented Eugene S. Kilgore of the University of California, who spoke in a very practical and clear-cut way on the subject of "Pitfalls in Heart Diagnosis."

The speaker stated that there are two groups of cardiac disturbances: in one group the symptoms and signs refer directly to the heart, and these symptoms and signs are often mistakenly interpreted as cardiac disease when no cardiac condition is present; and in the second group the symptoms and signs due to heart disease are interpreted as conclusive indication of disease of other organs. The first group of symptoms and signs occur commonly in young people; the other group in persons past middle life and beyond. In the first group all the symptoms may suggest actual heart disease, and the patient is labeled heart disease, when on careful examination the condition is found to be noncardiac; with all the symptoms and signs of heart disease, but no definite disease can be found. The symptom complex has been designated by Lewis as "effort syndrome." The symptoms may be breathlessness, fatigue, exhaustion, palpitation, fainting or giddiness. Breathlessness in heart affections means heart damage, but it is a common symptom in noncardiac cases following infectious diseases, fatigue and exhaustion. Faintness and giddiness are often symptoms of actual heart disease, but much more common in neurotic individuals. The patient comes with the idea of heart disease. It is important to determine the cause of the faint. Was it psychological? seeing an accident, being vaccinated, having blood taken for Wassermann, or having blood pressure taken? A sudden change of posture from the recumbent position to the sitting or standing position may cause dizziness.

In palpitation the heart beats uncomfortably; frequently present in noncardiac cases, increased frequency is common in effort syndrome. People with an irritable nervous system often become distressed and uncomfortable from palpitation.

Premature contractions are generally accurately described by the patient by phrases like "flipping a trout," "dripping in the chest," "back fire of an automobile," "feeling of fullness in the neck." One can put heart block to one side with a description of that kind. A skipped beat does not mean heart block. A serious cardiac condition may be missed by confusing heart block as premature contractions.

Paroxysms of tachycardia, or "racing periods" of the

heart, means a sudden change from an ordinary rhythm to a rapid beat. The patient can as a rule describe the change very accurately. Patients with paroxysms of tachycardia have a good life expectancy. Systolic murmurs are often taken to mean heart disease. In examining large groups of young people as university students 30 per cent have systolic murmurs either at apex or pulmonic area, but have no cardiac affliction. Base your judgment of heart disease on systolic murmurs plus something else.

Presystolic or diastolic murmurs when genuine always mean some heart defect—valvular lesions, etc.

Symptoms and signs of heart disease that often lead to mistaken diagnosis or diagnosis of conditions in other organs, occurring in people past middle life. The symptoms direct attention away from the heart. There are the congestive symptoms. Gas in stomach at or past middle life is indicative of circulatory disease. In heart disease or circulatory disease, gas and fullness immediately after eating is worse. Beginning sclerosis, angina, syphilitic heart, pain and distress may lead to the diagnosis of stomach trouble.

When death occurs suddenly after a full meal it is commonly stated to be caused by acute indigestion; it is in 98 per cent the result of disease of the coronary arteries. In cardiac disease gas and belching are common.

Coronary thrombosis may simulate an acute abdomen, pain in the epigastrium or in the chest. The pain comes on without effort. Patient may get it resting in bed or when active. The physician may be thrown off his track when on careful examination he finds little or only slight physical signs. The alternating pulse is often missed; it is the big—little—beat—always means damage to cardiac muscle. It can be plainly felt with the fingers. It can also be ascertained by having blood pressure cuff at systolic height and note whether a pulse wave comes through.

Pain may direct attention to the heart when the heart is not sick. Pain in angina pectoris is threatening. Age, sex, and occupation are important factors in genuine angina pectoris, which occurs at or past middle life. Pseudoangina is a condition of the young and nervous type of individual; it is not common in a laborer.

The kind of pain is also important; lancinating, stabbing, piercing, or that the chest is in a vise, or a load on chest is common in pseudoangina. In pseudoangina the pain is oftenest over the heart; in genuine angina the pain is often under the sternum.

The pain of genuine and pseudoangina may radiate. Radiation of pain is more common in genuine angina. It may radiate to the shoulder, arm, wrist, and jaw. General anginal attacks before the age of 40 are commonly due to old syphilis.

Throughout his lecture Doctor Kilgore cited histories of patients personally observed by him in his practice for the purpose of illustrating his points and to clear the way for a proper understanding of the diagnosis of heart conditions.

Doctors Pulford, Bell, Davison, and Blackmun entered into the discussion, and many questions were asked which Doctor Kilgore answered in a practical and instructive manner.

FRED J. CONZELMANN, *Secretary*.



SANTA BARBARA COUNTY

The regular monthly meeting of the Santa Barbara County Medical Society was held in the Cottage Hospital on Monday evening, February 14, with President H. E. Henderson, M. D., in the chair.

The minutes of the annual meeting were read and approved.

The scientific program was opened by Rexwald Brown, who first gave a case report of a tumor on the superior wall of the uterus, then followed with six case reports of perforated peritonitis, in which he emphasized the efficacy of the Ochsner, Murphy, Fowler after-treatment.

H. J. Ullmann then gave a paper on "Roentgen (Rentgen) Diagnosis of Nasal Sinus Disease," followed by "Ethmoidal and Sphenoidal Sinuses as Sources of Focal Infection"—W. D. Sansum.

These papers were thoroughly discussed by Doctors

Profant, Means, Wells, Vandevere and Lewis, and briefly discussed by other members of the society.

A report was read by Rexwald Brown, chairman of the committee appointed by the president to ascertain ways and means to consolidate and unify the various health activities of the city of Santa Barbara. This report was most constructive and was unanimously adopted by the society. The report called for the appointment of three members of the society to continue the investigation, and the president thereupon appointed Doctors Brown, Means, and Freidell.

A communication from Mr. George E. Coleman, president of the American Association for Medical Progress in re the Hulsinger Anti-Evolution Bill was read. It was moved by Doctor Lewis, and seconded by Doctor Mellinger, that the secretary be instructed to send a copy of this protest to Mr. William Byrne, chairman of the Committee on Education of the Assembly, Sacramento, and also to Representative Finley, under the name of the Santa Barbara County Medical Society.

George Luton reported an incident of the Chamber of Commerce sending out a specific fee bill. This was followed by Rexwald Brown, who read the complete correspondence of the Chamber of Commerce in re this action, and upon motion of Doctor Robinson, duly seconded, it was moved that the Chamber of Commerce be requested to refer, in the future, all such communications to the president of the medical society.

A communication from the Southern California Medical Association inviting our membership to attend the seventy-sixth semiannual convention of the Association at Redlands, March 18 and 19, was read and ordered filed.

A communication from the Clinical and Statistical Section of the Los Angeles County Medical Association inviting our membership to attend these clinics at any time when in the city of Los Angeles, was read, and upon motion duly seconded and carried, the secretary was instructed to extend to this section a vote of thanks of the society and also request if it would be possible for them to send a daily program to each of the hospitals, to be posted in a conspicuous place.

The following applicants filed their credentials and dues for membership in the Santa Barbara County Medical Society: J. C. Bainbridge, R. W. Johnson, Richard Evans, and W. E. Vandevere. The applications were read and given to the Board of Censors.

The president appointed a program committee consisting of Doctors Sansum, Means, and Eaton.

There being no further business the meeting adjourned.

The regular monthly meeting of the Santa Barbara County Medical Society was held in the Cottage Hospital at 8 o'clock on Monday evening, March 14, with President H. E. Henderson in the chair.

There were present twenty-three members of the society and two visitors.

The scientific program was opened by the presentation of a case of "Plastic Repair of an Extensive Face Burn" by W. J. Wells.

This was followed by "Intestinal Obstruction" by C. S. Stevens, and a report of several cases of "Fracture with Open Reduction" by H. L. Schurmeier.

At the conclusion of the scientific program the meeting went into executive session.

It was moved by Doctor Brown, seconded by Doctor Ullmann and carried unanimously, that the society contribute the sum of \$20 to the Walter Reed Memorial Fund.

It was moved by Doctor Sansum, seconded by Doctor Ullmann and carried, that the Santa Barbara County Medical Society recommend to the Cottage Hospital that a minimum of two interns be on duty at the hospital at all times.

A bill of \$2.60 for payment of song books lost at our annual meeting was ordered paid to G. W. Curtis.

The president appointed Doctor Lamb as an additional member of the program club.

The president appointed a legislative committee consisting of Doctors Stevens, Bagby, and Eaton.

It was moved, seconded and unanimously carried, that

the Medical Society endorse the preschool examinations sponsored by the State Board of Health and that they gratuitously furnish medical examiners when requested.

There being no further business the meeting adjourned.

W. H. EATON, M. D., *Secretary*.



STANISLAUS COUNTY

The regular monthly meeting of the Stanislaus County Medical Society was held on March 11. It was the best meeting in the history of the society.

The Modesto Women's Improvement Club entertained the society at the new Women's Improvement Club building. A delicious turkey dinner was served at 6 p. m. There were thirty-eight physicians and eighteen ladies as guests.

During the dinner a musical program was rendered by Mr. Charles Gartin, Mrs. Everett Bates, Madam Raddue and the Raddue brothers. Following dinner the ladies had a pleasant evening with five tables of Bridge. The medical program was, as follows:

X-Ray Finding in Gall Bladder Disease, E. V. Falk, Discussion opened by E. R. McPheeters.

Retinitis Pigmentosa, R. M. Porter. Discussion by L. D. Mottram, J. K. Morris, and E. F. Reamer.

Report of Cases of Face Presentation, J. A. Cooper. Discussion opened by F. R. McKibbin.

Case Reports of Spina Bifida, J. E. Clark. Discussion general.

Much time and thought had been given the papers and full discussion followed each paper.

Under the capable direction of the president, E. V. Falk, the society is enjoying a very successful year. The attendance at each meeting has been the largest in the society's history.

J. W. MORGAN, *Secretary*.

CHANGES IN MEMBERSHIP

Deaths—Burton, James. Died at Pasadena, March 7, 1927, age 59. Graduate of the Albany Medical College, New York, 1894. Licensed in California in 1914. Doctor Burton was a member of the Los Angeles County Medical Association, the California Medical Association, and a Fellow of the American Medical Association.

Howard, Henry Williams. Died at Los Angeles, February 23, 1927, age 61. Graduate of Rush Medical College, Illinois, 1890. Licensed in California in 1896. Doctor Howard was a member of the Los Angeles County Medical Association, the California Medical Association, and a Fellow of the American Medical Association.

Thomas, Charles Preston. Died at Santa Monica, February 21, 1927, age 62. Graduate of the University of Oregon Medical School, 1888. Licensed in California in 1893. Doctor Thomas was a member of the Los Angeles County Medical Association, the California Medical Association, and a Fellow of the American Medical Association.

New Members—Alameda County—Helen A. Moore, Berkeley.

Butte County—Vernon Rood, Stirling City.

Humboldt County—Frederick C. Gregg, Scotia.

Imperial County—Benjamin R. Davidson, Brawley; Junsai Watanabe, El Centro.

Kern County—Lloyd H. Fox, William C. Paul, Bakersfield.

Los Angeles County—Herbert A. Huntington, Walter C. Johnson, Edward J. Kilfoy, Solomon I. Movitt, Werner Rammelt, Philip A. Reynolds, Alphonse J. Schubert, John M. Wheelis, Los Angeles; Houston H. Parsons, Santa Monica; Arthur P. Thompson, Bell; Harry T. Upshaw, Pasadena.

Merced County—Clarence C. Fittsgibbon, Merced Falls; Chester A. Moyle, Merced.

Napa County—Carl A. Johnson, Inola.

Orange County—Samuel W. Leiske, Brea.

Placer County—Monica Stoy Briner, Lincoln; Max Dunievitz, Colfax.

Sacramento County—Louise M. Igo-Flitcroft, Sacramento.

San Bernardino County—Cyril B. Courville, Myron S.

King, Alden C. Thompson, Loma Linda; Geoffrey J. Fleming, Ontario; John A. Graham, Barstow; Wilbur E. Kellum, Redlands; Samuel W. Kime, Mentone; F. S. Modern, Arrowhead Springs; Lloyd E. Smith, San Bernardino.

San Diego County—Roelf Berkema, Alpine; Frank St. Sure, San Diego.

San Francisco County—Arthur C. Armstrong, Einar V. Blak, Everett Carlson, Emelie A. De Eds, Roy L. Fielder, Frederick L. Reichert, Christian E. Voigt, Benjamin L. Freedlander, San Francisco.

San Joaquin County—Clifford L. Bishop, Linden; C. E. Stagner, Tracy.

San Mateo County—Benjamin Page, San Mateo.

Santa Clara County—Edward Amaral, Stanley Dougan, Louis Lackner, San Jose; Frank R. Anderson, Campbell; Herbert L. Niebel, Palo Alto.

Santa Cruz County—Oscar C. Marshall, Watsonville.

Sonoma County—Robert L. Matteo, Santa Rosa.

Stanislaus County—Hans Hartman, Harry B. Stewart, Ripon.

Tulare County—Gilbert B. Furness, Frank Kohn, Visalia; J. Seiberth, Pixley; Benjamin H. Pratt, Lemoore.

Tuolumne County—John Paul Sweeney, Tuolumne.

Transferred Members—Harold J. Beaver, from Santa Cruz County to Santa Clara County.

Fred J. Crease, from Kern County to Los Angeles County.

J. Carl Cummings, from Santa Barbara County to Los Angeles County.

E. J. Finnerty, from Alameda County to Sonoma County.

N. B. Gould, from San Joaquin County to Stanislaus County.

Fred Harrison, from Santa Cruz County to Humboldt County.

John L. Montgomery, from Los Angeles County to Kings County, Washington.

F. H. Oldberg, from Mendocino County to Contra Costa County.

Merl L. Pindell, from Orange County to Los Angeles County.

Ralph M. Smith, from Imperial County to Riverside County.

Chester J. Teass, from San Francisco County to San Luis Obispo County.

Oliver E. Thompson, from San Francisco County to Riverside County.

Charles Weddle, from Fresno County to Tulare County.

Resigned Members—Frank J. Gobar, Fullerton, California; B. G. Pinkerton, Alleyne von Schrader, W. L. Winnard, Los Angeles.

IN MEMORIAM

William Everett Musgrave

(Resolution adopted by the Council of the California Medical Association at its meeting of March 21, 1927.)

Resolved, By the Council of the California Medical Association, that in the death of William Everett Musgrave, our Association has suffered the loss of one of its most loyal members; has been deprived of a man who, of his wide scientific and medical organization knowledge, gave of himself without stint; and has had taken from its active membership a colleague, whose vision and kindly thought for the welfare of our beloved profession means now an almost irreparable loss; and be it further

Resolved, That this Council expresses to Mrs. William Everett Musgrave its deep sympathy with her in her great sorrow, and assures her that the memory of the many good works of William Everett Musgrave will remain an inspiration to the California Medical Association and to its members; and be it further

Resolved, That a copy of these resolutions be spread upon the minutes of this Council; that they be printed in CALIFORNIA AND WESTERN MEDICINE; and that a copy be engrossed, and sent to Mrs. William Everett Musgrave.

LIST OF SCIENTIFIC PUBLICATIONS OF W. E. MUSGRAVE

The life of Dr. William E. Musgrave and a tribute to his memory are published elsewhere in this number of CALIFORNIA AND WESTERN MEDICINE. Not until a list of Doctor Musgrave's writings was compiled had members of the Council any realization of the extent and scope of his scientific contributions to medicine. The following bibliography of the major studies and writings of Doctor Musgrave are a tribute to his ability as a physician and student, to his industry and to his broad grasp of matters medical.

1900. The Occurrence of Malta Fever in Manila, by R. P. Strong and William E. Musgrave. Philadelphia Med. Jour., 1900, vi, 996-1000, 1 chart. Preliminary Note Regarding the Etiology of the Dysenteries of Manila, by R. P. Strong and William E. Musgrave. Annual Report Surgeon-General, U. S. Army, Washington, 1900, 251-273.
1901. The Etiology of the Dysenteries of the Philippine Islands, by R. P. Strong and William E. Musgrave. U. S. Army Circulars on Tropical Diseases, Manila, 1901, ii, 7-54. Preliminary Note of a Case of Infection with Balantidium Coli (Stein), by R. P. Strong and William E. Musgrave. Bull. Johns Hopkins Hosp., Balt., 1901, xii, 31-32.
1902. Heatstroke, Followed by Nonfatal Lightning Stroke; Report of a Case, with Sequels, by George R. Torney and William E. Musgrave. Am. Med., Philadelphia, 1902, iv, 625-626. Sprue or Psilosis in Manila: A Disease or State. Am. Med., Philadelphia, 1902, iii, 389-394; 428-433. Abstract in Philadelphia Med. Jour., 1902, ix, 521-522.
1903. A Preliminary Report on Trypanosomiasis of Horses in the Philippine Islands, by William E. Musgrave and Norman E. Williamson. Bull. Bur. Govt. Laboratories, Manila, 1903, iii, 26 pp., 2 pls., 3 charts. Una Relacion Preliminar Sobre la Tripanosomiasis de las Caballes en las Islas Filipinas. Bull. Bur. Govt. Laboratories, Manila, iii (Spanish edition), 26 pp., 2 pls., 3 charts. Trypanosoma and Trypanosomiasis, with Special Reference to Surra in the Philippine Islands, by William E. Musgrave and M. T. Clegg, with a bibliography by Mary Polk. Bull. Bur. Govt. Laboratories, Manila, 1903, v, 248 pp., 155 illus., 2 maps.
1904. Amebas: Their Cultivation and Etiologic Significance, by William E. Musgrave and M. T. Clegg, with References to Literature by Mary Polk. Ibid., 1904, xviii, pt. 1, 1-86, 35 illus.
1905. Amebas: Their Cultivation and Etiologic Significance, by William E. Musgrave and M. T. Clegg. Jour. Infect. Dis., Chicago, 1905, ii, 334-350, 1 pl. Amebic Infection of the Urinary Bladder Without Rectovesical Fistula, by John R. McDill and William E. Musgrave. Med. News, New York, 1905, lxxxvii, 1163-64. The Pathology of Intestinal Amebiasis, by Paul G. Woolley and William E. Musgrave. Bull. Bur. Govt. Laboratories, Manila, 1905, xxxii, pt. 3, 31-48, 23 illus. Also in Jour. Am. Med. Assoc., Chicago, 1905, xlv, 1371-78, 27 illus. (3 colored). Symptoms, Diagnosis and Prognosis of Uncomplicated Intestinal Amebiasis in the Tropics. Jour. Am. Med. Assoc., Chicago, 1905, xlv, 830-37. Treatment of Intestinal Amebiasis in the Tropics. Ibid., 1905, xlv, 1098-1107.
1906. Amebiasis: Its Association with Other Diseases, Its Complications, and Its After Effects. Philippine Jour. Sc., Manila, 1906, i, 547-73. The Cultivation and Pathogenesis of Amebae, by William E. Musgrave and M. T. Clegg. Ibid., 1906, i, 909-50, 10 illus. Tropical Splenomegaly, by William F. Musgrave, W. B. Wherry, and Paul G. Woolley. Bull. Johns Hopkins Hosp., Balt., 1906, xvii, 28-32. Abstract in Med. Rec., New York, 1906, lxix, 628.
1907. The Etiology of Mycetoma. Report of a Case of the Ochroid Variety Occurring in the Philippine Islands and Caused by a New Species of Streptothrix (*Streptothrix Freeri*), by William E. Musgrave and M. T. Clegg, with a bibliography by Mary Polk. Philippine Jour. Sc., Manila, Sec. B., 1907, ii, 477-511, 10 illus., 1 table. Gangosa in the Philippine Islands, by William E. Musgrave and H. T. Marshall. Ibid. Sec. B., 1907, ii, 387-401, 1 illus. Infant Feeding and Its Influence Upon Infant Mortality in the Philippine Islands, by William E. Musgrave and George F. Richmond. Ibid., Sec. B., 1907, ii, 361-85, 1 chart. Paragonimiasis in the Philippine Islands. Ibid., Sec. B., 1907, ii, 15-65, 48 illus.
1908. The Composition of Horlick's Malted Milk, by George E. Richmond and William E. Musgrave. Ibid., Sec. A., 1908, iii, 87-90. Discussion of Doctor Garrison's paper on Animal Parasites of Man and Doctor Gilman's paper on Philippine Medical School Autopsies. Editorial. Ibid., Sec. B., 1908, iii, 261-62. The Influence of Symbiosis Upon the Pathogenicity of Microorganisms. (The Evolution of Parasitism). Ibid., Sec. B., 1908, ili, 77-58. Streptothricosis, with Special Reference to the Etiology and Classification of Mycetoma, by William E. Musgrave and M. T. Clegg, with a bibliography by Mary Polk. Ibid., Sec. B., 1908, iii, 447-544, 36 illus., 1 table. Trichocephaliasis (with a report of four cases, including one fatal case), by William E. Musgrave and M. T. Clegg with a bibliography by Mary Polk. Ibid., Sec. B., 1908, ili, 545-66.
1909. Elective Homestead Colonization as a Practical Method of Controlling Tuberculosis in the Philippine Islands, by William E. Musgrave and A. G. Sison. Bull. Manila Med. Soc., 1909, i, No. 9, 6-7. Ten Years of American Sanitation in the Philippine Islands. Jour. Am. Med. Assoc., Chicago, 1909, lii, 442-44.
1910. Aseptic Midwifery in Manila. Bull. Manila Med. Soc., 1910, ii, 134-35. Blood Pressure in the Tropics. A Preliminary Report by William E. Musgrave and A. G. Sison. Philippine Jour. Sc., Manila, Sec. B., 1910, v, 325-29. The Bone Lesions of Smallpox, by William E. Musgrave and A. G. Sison. Ibid., Sec. B., 1910, v, 553-56, 8 illus. Clinical Medicine in the Tropics. Editorial. Bull. Manila Med. Soc., 1910, ii, 4. The Filipina Trained Nurse. Editorial. Ibid., 1910, ii, 184-85. Health Conditions in the Philippine Islands. Manila Times. First Annual Edition, 1910, 21, 112. Intestinal Amebiasis Without Diarrhea. A Study of Fifty Fatal Cases. Philippine Journal Sc., Manila, Sec. B., 1910, v, 229-31. Mali-Mali, a Mimic Psychosis in the Philippine Islands. A Preliminary Report, by William E. Musgrave and A. C. Sison. Ibid., Sec. B., 1910, v, 335-39. Obstetrics in Manila. Editorial. Bull. Manila Med. Soc., 1910, ii, 54-56. Residence in the Tropics. Editorial. Ibid., 1910, ii, 150-51. Tuberculosis Among Filipinos. A Study of One Thousand Cases of Phthisis, by William E. Musgrave and A. G. Sison. Philippine Journal of Science, Manila, Sec. B., 1910, v, 313-23, 12 tables.

1911. A Case of Masked Tertian Malarial Fever with Marked Mental and Nervous Manifestations and with Unusually Few Parasites in the Peripheral Circulation. Bull. Manila Med. Soc., 1911, iii, 28-31.
The Progress of Medical Research in the Philippine Islands. Ibid., 1911, iii, 122-26; 136-44.
Progress of Scientific Research in the Philippines. Manila Times. Second Annual Edition, 1911, 28-29.
Tuberculosis in the Philippine Islands. Editorial. Bull. Manila Med. Soc., 1911, ili, 200-202.
1912. The Treatment of Intestinal Amebiasis. Jour. Am. Med. Assoc., Chicago, 1912, lviii, 13-18.
Typhus Fever in the Philippine Islands. A Preliminary Report, by William E. Musgrave and C. E. Stanley. Bull. Manila Med. Soc., 1912, iv, 126-30.
Professor Freer and the University of the Philippines, by William E. Musgrave, Phil. Jour. Sc. (Memorial Number), vii, July, 1912.
The Spirit of Research in Medicine, by William E. Musgrave, Bull. Manila Med. Soc., October, 1912.
La Alimentacion Infantil en Filipinas, by William E. Musgrave. Revista Filipina de Medicina y Farmacia, iii, No. 11, November, 1912.
1913. The Bone Lesions of Smallpox (second report), by William E. Musgrave and A. G. Sison. Phil. Jour. Trop. Med., viii, No. 2, April, 1913.
Acute Malignant Glanders in Man, by William E. Musgrave and A. G. Sison. Phil. Jour. Trop. Med., viii, No. 5, October, 1913.
Infant Mortality in the Philippine Islands, by William E. Musgrave. Phil. Jour. Trop. Med., viii, No. 6, December, 1913.
1914. A Sanitary Survey of the Island of Mindora, by William E. Musgrave and Others of Commission. Phil. Jour. Trop. Medicine. (In press.)
The Bacillary Dysenteries of Manila, Causes and Treatment, by William E. Musgrave and A. G. Sison. Phil. Jour. Trop. Med. (In press.)
Infant Mortality in the Philippine Islands. (Report of the Government Committee for the Investigation of this subject.) Publications Bureau of Science, about 700 pages with numerous illustrations, charts, etc. (In press.)
1921. Hospital Organization with Special Reference to Report on Trypanosoma and Trypanosomiasis, with Special Reference to Surra in the Philippine Islands, by William E. Musgrave and M. T. Clegg, with a bibliography by Mary Polk. Annual Report Philippine Commission for 1903, ii, Appendix C. Report Superintendent Government Laboratories, Washington, 1904, 419-573, 155 illus., 2 maps. (Also printed separately as second annual report of the Superintendent of Government Laboratories.)
Treatment of Intestinal Amebiasis (Amebic Dysentery) in the Tropics. Ibid., 1904, xviii, pt. 2, 87-117.
1921. Hospital Organization with Special Reference to the Machinery of Government. The Modern Hospital, January, 1921.
Making the Hospital and Clinic Record Service Serviceable. The Modern Hospital, April, 1921.
Tropical Neurasthenia, Tropical Hysteria and Some Special Tropical Hysteria-like Neuropsychoses. Archives of Neurology and Psychiatry, April, 1921, Vol. v, pp. 398-407.
1922. An Outline for the Rating of Hospitals. J. A. M. A., August 19, 1922, Vol. 79, pp. 599-605.
Flagellate Infestations and Infections. J. A. M. A., December, 1922, Vol. 79, pp. 2219-21.
A Clinical and Pathological Study of Neuritis in the Tropics, with Special Reference to Beriberi, by William E. Musgrave and Bowman C. Crowell. Amer. Jour. of the Med. Sciences, August, 1922, No. 2, Vol. clxiv, p. 227.
1926. Is Universal Life Insurance Coming? J. A. M. A., May, 1926, Vol. 86, pp. 1644-45.
Drug Addicts and Drug Addiction. C. and W. M., Editorials. May, June, and July, 1926.
- Social Service Sifts Needy from Pretended Indigent. The Nation's Health, March, 1926.
Using Discretion While Bestowing Relief. The Modern Hospital, May, 1926.
Beriberi, by W. E. Musgrave and Bowman C. Crowell. Osler's Modern Medicine (McCrae), Vol. 2, 1926.
1927. How Are You? Very Well, Thank You. Hygeia, February, 1927.

*"Under the wide and starry sky
Dig the grave and let me lie.
Glad did I live, and gladly die,
And I laid me down with a will.*

*This be the verse you grave for me:
Here he lies where he longed to be;
Home is the sailor, home from the sea,
And the hunter home from the hill."*

The words and sentiments of the above epitaph, written by Robert Louis Stevenson, came to the minds and hearts of many friends of Doctor Musgrave who were present when, on March 11, our late editor was laid to rest in a spot which he himself had chosen.

The honorary pallbearers were: Drs. William T. McArthur, Percy T. Phillips, James W. Ward, Morton R. Gibbons, Wallace I. Terry, Howard Morrow, Herbert C. Moffitt, Percy T. Magan, Ernest H. Falconer, Robert V. Day, O. D. Hamlin, Harlan Shoemaker, Howard C. Naffziger, William Duffield, Alfred C. Reed, George H. Kress; Messrs. Charles C. Cole, Samuel Buckbee, Frederick Koster, and P. C. Harrison.

Los Angeles Steamship Company—There has been developed during recent years a very marked tendency for bodies of delegates traveling to one of the Pacific Coast cities to move by water, where possible, on the same steamship.

According to the expressed opinion of many connected with convention movements, water travel on the Pacific Coast offers peculiar advantages for movements of this type. This is particularly the case between San Francisco and Los Angeles and San Diego. Not only do our California coastwise liners provide unusually swift and particularly luxurious transportation, but the possibilities of extending group friendships and of enjoying formal and informal meetings and discussions of matters of interest to the delegates is particularly favorable while traveling on a big passenger steamship.

In addition there is the immediate development of a holiday spirit of enjoyment among the delegates as soon as they gather on a deck of a liner and watch the shores of their port of departure fade away, leaving to them the freedom of a large ship with the luxuriousness, spaciousness and cleanliness which particularly mark travel on such coastwise liners as the Yale and Harvard.

These sisterships will provide a special program of entertainment for delegates sailing from San Francisco for the California Medical Association Convention in Los Angeles, April 25 to 28, and bookings are being made over a wide range of the northern territory for this trip.

Southern Pacific Train Service to Los Angeles—Los Angeles and San Francisco were still more closely bound together by railroad service March 20, when the Southern Pacific placed in service a fast daylight train between the two cities operating via the San Joaquin Valley. The company now has two fast daylight trains operating between the two cities, one via the Valley and one via the Coast route, and altogether has ten trains a day each way.

The new train, the San Joaquin Flyer, carries parlor observation car and dining car besides coaches. The Daylight Limited, the daylight train on the Coast route, also carries observation and dining cars. It operates the entire distance without a stop to take on passengers, being unique in American railroad transportation, in this respect.

The Southern Pacific has started a number of innovations on its San Francisco-Los Angeles trains; for example, the company is providing an elaborate table d'hôte meal for \$1.50 on the Owl dining cars. Another innovation is the practice of announcing meals on mellow-toned dinner gongs.

UTAH STATE MEDICAL ASSOCIATION

W. R. CALDERWOOD, Salt Lake.....President
 E. H. SMITH, Ogden.....President-Elect
 FRANK B. STEELE, Salt Lake.....Secretary
 J. U. GIESY, 701 Medical Arts Building, Salt Lake.....
Associate Editor for Utah

BAYING THE MOON

Eve ate the apple, and we all must die. "An apple a day keeps the doctor away." Here seems a paradox rather difficult to harmonize. And on top of it Bre'r McFadden, helmsman of the *Physical Culture Magazine*, appears to believe that a man may eat his way into health, as well as dig his grave with his teeth.

The writer is somewhat interested in McFadden's latest outburst against the profession itself. This gentleman for some years has, as it were, been "baying the moon."

Quoting not literally, from the February number, and from the standpoint of apparent meaning conveyed, he does not hesitate to allege that the public is at the mercy of a monopolistic organization of some 70,000 members, banded together to batten off the physical woes of patients and to protect one another from any penalization for the "criminal" acts in the operating room or the sick room.

This would of course be bad enough if it were true. Yet we could scarcely escape the feeling in reading the article that the fact which appeared to be troubling the writer, whoever he may have been, was that within recent years the rapidly growing sport of suing the doctor for "malpractice" has seemingly become less lucrative.

To err is human, and we are all human—some of us less so than others, of course. Yet having been in the profession for years, the writer would express the opinion that the greatest penalty a doctor may suffer or have inflicted upon him lies in the conscious knowledge that he *has* made a mistake. Do those who so often criticize the medical profession have any real conception of how the average doctor works, of how much thought, study, consideration and mental travail he expends upon the patients he treats, of how the doctor "takes his case to bed with him." Certainly we feel that the sincere endeavor to do his best which he exhibits is far greater than that given by the framer of an attack upon a profession which has spent its time in combating and alleviating human suffering for so many, many years has given to the truth of the things it has pleased him to allege.

Wherefore we deprecate such articles as this. Like the "baying of the hound at the moon," it promotes unrest despite the fact that it is a futile voice-moment, the major effect of which is to disturb the quiet of the night without any effect on the serene course of the silvery orb. For the moon rides on despite the baying of the hound. And we feel sure that the medical profession will continue to combat and relieve human misery, to deserve and win the respect, confidence and gratitude of countless thou-

sands, long, long after those who bay against it in health, and would quite possibly turn to it in the final necessity, shall have become no more than impotent dust.

J. U. G.

The outstanding event of a social nature in local medical circles was the card and dancing party given by the Woman's Auxiliary of the Salt Lake County Medical Society in the new Medical Arts Building the night of March 1. In the nature of a housewarming, this was the first social affair held in the new structure, and was a very pleasant and brilliant success. With an excellent orchestra to furnish the music for dancing in the lecture auditorium, which was tastefully decorated with lamps and flowers, with card tables on the mezzanine floor which was trimmed with floor lamps and brilliant rugs, with punch and light refreshments, and with personally conducted tours of inspection of the building extemporaneously arranged by the doctors occupying space for their friends, the evening passed in an enjoyable fashion.

Some eighty couples were present during the evening and Dr. Fred Stauffer, to whom so much of the successful erection and opening of the first strictly professional structure in Salt Lake is due, acted as the official host, explaining to the guests in a few remarks the inception of the idea which has now resulted in such admirable concrete form.

The committee in charge consisted of Mrs. J. U. Giesy, Mrs. Earl Van Cott, Mrs. John Z. Brown, Mrs. T. H. Morton, and Mrs. E. D. Hammond, president of the Auxiliary for the present term.

The Utah County Medical Society held the first meeting of the month the evening of March 2. Following the usual custom the meeting was preceded by dinner at the Roberts Hotel, after which the scientific program was heard. At this meeting the speaker of the evening was A. J. Hosmer of Salt Lake City, who read an interesting and instructive paper on the subject of "Burns and Skin Grafting," in which he described a new method of treating severe burns through a method of immobilization of the burned areas by means of plaster casting and wire bridging so as to permit of the treating of the burned surface as an open wound.

The second meeting of the month was held the evening of March 16. After the supper J. U. Giesy of Salt Lake addressed the society on the subject of physiotherapy, giving a general consideration to the various modalities now more commonly employed in this field of medical work.

Both meetings were followed by brief business sessions before adjournment.

The Program Committee of the state meeting scheduled for June, Dr. John Z. Brown, chairman, announces that several men have accepted the invitation to be present and appear on the program during the three days of the meet. California will be represented by three men according to latest advices, and unless the committee is disappointed between now and the opening there will be three or four good men from the East.

The regular meeting of the Holy Cross Hospital Clinical Association was held the night of February 21, 1927.

An interesting case of monstrosity was presented by Galligan.

The principal paper of the evening was by T. A. Flood on "The Clinical Significance of the Metabolism Test." The doctor gave a masterly exposition of the subject and illustrated a part of his paper with lantern slides, besides demonstrating the apparatus used in making the test and working out several theoretical cases on the blackboard, to show how the final estimations and their significance are evaluated from the data furnished by the records of the machine.

Besley exhibited a case of foreign body in the stomach, the body in this case being a needle which had apparently

fallen from the dress of the patient's mother while she was cooking hot-cakes for breakfast.

Salt Lake County Medical Society held a regular meeting in the assembly room in the Medical Arts Building, Salt Lake City, Monday, March 14, 1927, with forty-two members and two visitors present.

Minutes of the previous two meetings were read and accepted without correction.

Paul S. Richards of Bingham, Utah, talked on the "Treatment of Epidemic Cerebrospinal Meningitis." He stressed the importance of drainage and specific therapy. He outlined in detail the technique of spinal puncture and the obstacles that may be met, and also described dosage and frequency of the specific serum and showed temperature records on several of his patients.

This very interesting paper was discussed by D. L. Barnard, J. R. Llewellyn, H. H. Pace, J. J. Galligan, F. M. McHugh, E. L. Skidmore, and G. G. Richards.

F. Leaver Stauffer reported thirty-two of his patients on which bronchoscopy had been done. He showed foreign bodies which had been removed, and in his discussion outlined the methods used in removing the offending articles. In conclusion Stauffer showed films on some of his patients.

This very interesting paper was discussed by F. M. McHugh, Vivian White, and R. Mark Brown, who showed some x-ray films of foreign bodies.

Application for membership from the following men were read: R. Mark Brown and L. E. Warenski.

Adjournment at 9:50 p. m.

M. M. CRITCHLOW, *Secretary*.

In Memoriam—Walter E. Ellerbeck, M. D., 54, one of the prominent physicians and surgeons of Salt Lake, died suddenly Thursday morning at 8:30 o'clock at the family residence, 955 East South Temple Street, of acute dilatation of the heart. Doctor Ellerbeck had been ill but three days, and his death was a distinct shock to his family and friends.

After receiving his primary education in the public schools of Salt Lake he attended the University of Pennsylvania at Philadelphia and was graduated from this institution in 1894. The following two years he spent as an intern at the Presbyterian Hospital in Philadelphia and then returned to Salt Lake to commence his private practice.

Doctor Ellerbeck was a member of the Utah State Medical Association and was its secretary for nine years. He was also a member of the Salt Lake County Medical Association and the American Medical Association.

Out of respect to Doctor Ellerbeck, the party of the Auxiliary of the Salt Lake County Medical Association, scheduled for Saturday night at the Medical Arts Building, was postponed.

Dr. M. Skolfield has just been appointed a member of the newest branch of the medical profession, that of air medicine. Dr. Louis H. Bauer of the aeronautical branch of the department of commerce, said that negotiations are now pending with leading medical schools of the United States for the purpose of establishing air medicine courses.

He said the aviator requires several physical qualifications peculiar to his profession, one of which is to see out of the corner of his eye when looking straight ahead in order to pick up other planes. He must also have a nervous system which is capable of withstanding much wear and tear, and his keeping in condition can only be accomplished by physicians who make a specialty of the changes in the human body while it is away from its natural element.

Doctor Skolfield will be a part of the nucleus of the corps of examiners of recruits for air medical colleges.

William O. McCracken, aviation assistant to Secretary Hoover, said that he looks forward to the day when a specially qualified physician will be on duty at each important airport, giving assurance of the capacity of pilots to direct their loads of passengers and freight safely through the upper regions.

NEWS

The Pacific Coast Surgical Association held its second annual meeting in Del Monte, February 25 and 26, with Stanley Stillman, San Francisco, presiding. There was a large attendance, notwithstanding the heavy rains attendant with washouts. Many of its members from the North were en route five days and nights. On reaching Del Monte they were welcomed by the warm rays of the sun. The scientific papers elicited much discussion. In the afternoons recreation was had in golf and motoring. Saturday evening the association dinner was held in the Copper Cup Room, and was graced by the presence of the wives of the members. Clarence Toland, Los Angeles, officiated as toastmaster and addresses were made by Stanley Stillman, San Francisco; Thomas W. Huntington, San Francisco; W. D. Kirkpatrick, Bellingham, Washington; Doctor McNeerthney, Tacoma, Washington; Doctor Swindt, Pomona; and J. Tate Mason, Seattle.

It was decided to meet in Portland the same time next year. The following officers were elected: Robert C. Coffey, Portland, president; A. S. Lobingier, Los Angeles, first vice-president; George W. Swift, Seattle, second vice-president; and Edgar L. Gilcreest, San Francisco, secretary-treasurer.

The men who constitute the council are: Thomas O. Burger, San Diego; J. Tate Mason, Seattle; Harold Brunn, Philip K. Gilman, Stanley Stillman, San Francisco.

First resolution proposed by Horace G. Wetherill, Monterey, California, and adopted by the Pacific Coast Surgical Association, at the second annual meeting in Del Monte, February 26, 1927.

Lister Centennial

Resolved, That the Pacific Coast Surgical Association act as sponsors for certain memorial meetings to celebrate the one hundredth anniversary of the birth of Joseph Lister, and that the president of the Association is hereby directed to appoint four committees of five Fellows of the Association each, one for the state of Washington, one for the state of Oregon, one for northern California, and one for southern California.

Resolved, That it shall be the duty of each of these committees to arrange for a meeting in its territory on the fifth of April next (1927) to which meeting Fellows of the Pacific Coast Surgical Association, all members of the regular medical profession, nurses' associations, members of scientific societies, clergymen of all denominations, members of bar association, and, if deemed best, the public, may be invited.

Resolved, That Seattle, Portland, San Francisco, and Los Angeles be designed as the places in which these *Centenary Jubilee Meetings* shall be held, that suitable speakers and ceremonies shall be selected and arranged in order that the service to humanity and to surgical science of the *Founder of Modern Surgical Science*, Joseph Lister, may be duly acknowledged by a grateful people; giving opportunity for an expression of our appreciation of his inestimable gift to us all, and that we may pay tribute to his memory and give thanks for his beneficent endowment for the cure of disease, the relief of suffering and the prolongation of life for all mankind.

The University of California Medical School, San Francisco, offers courses for qualified physicians in General Medicine, Pediatrics, Gastrointestinal Diseases, Dermatology, Syphilology, Radium Therapy, General Surgery, Orthopedic Surgery, Otorhinolaryngology, Ophthalmology, Genitourinary Diseases, Surgical Pathology, Roentgen Ray, Obstetrics and Gynecology, Circulatory Diseases, Laboratory Diagnosis, Neurology and Neuropsychiatry, in its summer term beginning June 6 and ending July 2.

The Alexander Sanitarium, Incorporated, at Belmont, California, recently opened their new occupational therapy

building, Hamilton Memorial. Many physicians and friends of the institution took part in the dedication exercises.

President Albert Soiland announces that the American Radium Society will hold a two-day session at the Hotel Mayflower in Washington, on Monday and Tuesday, May 16 and 17, which is just prior to the session of the American Medical Association.

On these two days, members of the American Radium Society will present papers on general radium therapy. All Fellows of the American Medical Association who are in Washington at this time are cordially invited to attend the sessions.

Externship in Dermatology and Syphilology—Stanford University Medical School—On August 1, 1927, an appointment to this position will be made for the year 1927-28. Salary, \$75 per month. About 300 syphilitics per week, and an average of thirty dermatological cases per day are treated. There are ample opportunities and facilities for research. Applications must be filed before June 1, stating age and educational qualifications of candidate. Address Harry E. Alderson, M. D., Clinical Professor of Medicine (Dermatology and Syphilology), Stanford Medical School, San Francisco.

The Los Angeles Surgical Society held a meeting March 11, at the California Lutheran Hospital.

Program: The Diagnosis of New Growths of the Intestine, Maurice Kahn; Surgical Treatment of New Growths of the Intestine, Rea Smith; and the Roentgen or X-Ray Diagnosis of Diverticulosis and Carcinoma of the Colon, William B. Bowman and Ray Carter.

Illinois State Medical Society Special Trains to A. M. A. Meeting—The Illinois State Medical Society is running a special train to Washington, D. C., over the Pennsylvania Railroad for the A. M. A. meeting in May.

Chicago is the transfer terminal for physicians coming from your district. Travel on this special train will undoubtedly hold many pleasurable features that otherwise would be unavailable. In addition to this opportunity for fraternization among doctors from Illinois and states north and west, there is a certain amount of professional pride in making of this "Special" a banner train. The schedule of train service is as follows: (These trains will be on the Pennsylvania Railroad.)

Leave Chicago, 1 p. m., May 15-16.

Arrive Washington, 9 a. m., May 16-17.

Additional special car service on the Liberty Limited, May 14 and 17, and the Pennsylvania Limited, May 14, 15, 16, and 17.

Liberty Limited—Leave Chicago, 1 p. m. Arrive Washington, 9 a. m.

Pennsylvania Limited—Leave Chicago, 5:30 p. m. Arrive Washington, 4:20 p. m.

Address inquiries and reservation requests to Mr. W. E. Blachley, Division Passenger Agent, Room 524, Union Station, Chicago.

Nurses' Alumnae Present Gift—The graduate Nurses Alumnae of St. Mary's Hospital were hostesses at a very enjoyable "at home" given recently to the Sisters of Mercy in the spacious auditorium of the hospital. A unique program was presented and at its close, a purse was presented to the Sisters for the new chapel, which forms part of the beautiful new addition to the hospital now in course of construction.

Sister Superior M. Paschal thanked the Alumnae for their generosity not only on this but for many evidences on former occasions.

St. Luke's Hospital at Twenty-seventh and Valencia streets, San Francisco, has inaugurated a free clinic in oral and plastic surgery, which is being held in the Clinic Building every Thursday afternoon at 2 p. m.

The Franklin Hospital Clinical Society met on Friday, February 4, in the hospital auditorium.

Doctor Shiels presented two cases: one, an early Ray-

naud's disease; and, two, a case of lues of the nervous system. Doctor Weil presented two cases of carcinoma of the rectum at different stages.

Shiels emphasized the importance of early diagnosis. He also enlarged upon the differential diagnosis associated with Raynaud's disease. Interesting discussion took place regarding prophylactic treatment and the surgical possibilities in the effort to prevent gangrene.

Weil demonstrated specimens of malignancy of the rectum, and described the surgical method associated with the removal of the mass.

Doctor Gehrels enlarged upon the treatment of such malignancies, and reported the results of his Kraskey operations. He also demonstrated patient who had undergone this operation in the clinic of Doctor Weil.

A second meeting of the Franklin Hospital Clinical Society was held on Friday, February 18.

Weil presented another "Raynaud's" of advanced type which had undergone operative procedures.

A third meeting of the Clinical Society took place in the x-ray room of the hospital on Friday, March 5. This meeting was under the direction of Dr. George Hartman, who took up as his subject "Tuberculosis of the Genito-urinary Tract," paying particular attention to tuberculosis of the kidney. He made a strong plea for the early diagnosis of kidney tuberculosis, and presented a number of very interesting x-ray pictures.

Doctor Hartman then read reports of cases operated upon by him, and stated that the earlier the kidney was removed the less chance there would be for bilateral involvement. He also declared that very intimate search for primary focus should be correlated with the aid received from a stereoscopic study of kidney plates.

Doctor Shiels showed x-ray plates of a Japanese patient who arrived in the hospital with a provisional diagnosis of liver abscess, made at the Salinas County Hospital. He told that the physical signs were typical of empyema, but that the fluoroscopic examination suggested that the aforesaid diagnosis of liver abscess seemed to be the correct one, and that flat plates taken anteriorly and posteriorly and laterally seemed to warrant the fluoroscopic diagnosis.

S. G. Kreinman, who has been chief resident of California Lutheran Hospital since 1925, has resigned to enter practice in the office of F. L. Anton, Pacific Mutual Building. A. O. Sanden, until recently assistant surgeon at Soldiers' Home Hospital, Sawtelle, succeeds Doctor Kreinman. The California Lutheran Hospital at present has an intern staff of nine. This will be increased to twelve July 1.

Now that we have heard from the pulpit and through the editorial columns of the press concerning the causes of a series of suicides among university students occurring of late, it might be appropriate to hear from those whose business it is to observe, study, and treat this class of individuals.

From the pulpit we find the explanation in the "gorging and forcing the mind before it is mature," particularly with "speculative theories of psychology, sociology, and subjects which call for maturity of intellect for their mastery or comprehension." The press approaches the truth in defending our courses of study and emphasizing the "neurotic life of these piping days," and calling attention to the fact that the suicide rate among students falls considerably below that of the average of the general population.

All, however, have quite forgotten to take into consideration the individual equation. These individuals are emotionally unstable and are only exhibitions of "shell shock" in times of peace. We always have had and always will have them, and but for their early passing they would in all probability have developed a "mental state" under some subsequent mental strain. The emotionally unstable are ever subject to suggestion, and the wide advertising of the "students' suicide parade" by the press serves only to increase the numbers. Most of these individuals were never intended for a student's life, and failed before they started. Some day there will be a more careful appraisal of physical and mental qualifications of those entering our industries, professions, and universities.

—Editorial, *Wisconsin M. J.*

CALIFORNIA BOARD OF MEDICAL EXAMINERS

By C. B. PINKHAM, M. D., *Secretary*

According to recent reports, J. Franklin Balzer, licensed naturopath, together with Mrs. Margaret Rowan, has been accused of attempting to murder Dr. Burt Fullmer as the result of a factional fight of the Seventh Day Adventist Reformed Church in Lankershim.

The magazine section of the Los Angeles *Examiner* of March 6, 1927, printed a full-page article on the beauty specialists which contained much of interest, particularly in view of the pending legislation for a bill to control the operation of the so-called "cosmetologists."

A new trial was ordered by the District Court of Appeals yesterday in the case of Dr. W. W. Homan, a dentist, 3323 Mission Street, whose license was revoked by the State Board of Dental Examiners in 1925. The board charged that Doctor Homan had purchased a license for an assistant from a Chicago doctor. . . .—*San Francisco Examiner*, March 9, 1927.

Carleton W. Faull, Oakland physician, whose notorious Globe Medical Dispensary at 773 Market Street was closed in 1915 through a crusade by the *Call*, was cited today to appear before the State Board of Medical Examiners . . . to show cause why his license to practice should not be revoked. . . . In an official report to Dr. Charles B. Pinkham, secretary-treasurer of the State Board of Medical Examiners, Special Agent Henderson today said that "Faull is now connected with two street fakirs at 1006 Broadway, Oakland, in the sale of nostrums called Zan and Arlo Balm." . . . The lecture is the ordinary "soap-box" oration, the speaker appearing in Oriental garb consisting of a colored turban, long Turkish robe, crystal ball and many jewels, one speaker decorating himself with two large snakes. . . .—*San Francisco Call*, February 25, 1927.

According to a report filed by our Special Agent Carter, Dave Goldring was on February 21, 1927, charged with practicing chiropody in Los Angeles in violation of the law, it having been reported that he so seriously cut the foot of the complainant that it was necessary to send him to the Los Angeles General Hospital.

Said to be wanted for passing bad checks in Huntington Beach and of grand larceny embezzlement of an automobile in Los Angeles, Dr. O. Hickens Glemstead, alias O. Hickman, etc., was arrested by Inspector Harry Vincent of the Immigration Board of Patrol yesterday. Police are holding Glemstead for Northern authorities.—*San Diego Independent*, February 10, 1927.

A fake sick call was used by two men early today for the purpose of decoying Dr. Frederick T. Grant, 3401 London Street, into a dark alley on Fremont Avenue between First and Second streets, and robbing him of \$500, a gold watch and chain, and a special deputy sheriff's badge, according to the physician's report of the crime to the police. . . . (*Los Angeles Herald*, February 11, 1927.) The records of the Board of Medical Examiners do not show anyone by this name licensed under the Medical Act.

The Harrison Narcotic Act must not be invoked to curb the sale and use of habit-forming drugs, United States District Judge George M. Borquin declared yesterday. Asserting that the Federal Narcotic Drug Statute is a revenue measure, pure and simple, Judge Borquin indicated that he would impose no prison terms or heavy fines upon its violators. Backing up his decision he imposed a nominal fine of \$5 and costs upon Jerry Millisack, one of the most notorious drug peddlers on the Pacific Coast. . . . Millisack recently finished a two-year sentence in the penitentiary, where he was sent for violation of the Narcotic Act. When he was arrested in 1924 he had more than \$100,000 worth of money and jewelry in addition to a quantity of drugs. On January 11 of this year, Millisack was arrested by federal operatives at 485 Eddy Street. No charge of sale was made against him, but he was accused of having fifty ounces of drugs in his possession, on which no tax had been paid. He pleaded guilty to the charge through this attorney, Thomas J.

Reardon, and was fined \$5 and the costs of prosecution, a matter of a few dollars. He was also directed to pay the tax of one cent an ounce on the fifty ounces in his possession.—*San Francisco Examiner*, March 15, 1927.

On February 25, 1927, in the Superior Court of Los Angeles County, the case against Dr. Allen I. Mann, in which the defendant was arrested by the State Pharmacy Board September 11, 1926, charged with selling morphin and cocain in violation of the State Poison Law, was dismissed, according to the report of our special agent.

Love barred prison doors against Florence K. Patton, former bank clerk, yesterday. Miss Patton, who refused to promise to stop associating with Dr. Leon Katz as a condition to her being admitted to probation, was sentenced to one to fourteen years in San Quentin by Judge Elliott Craig. . . . (*Los Angeles Examiner*, March 5, 1927.) The records of the Board of Medical Examiners show no one by the name of Leon Katz licensed to practice under the Medical Act.

Complaint was recently filed in the Justice Court of Colton, charging Petronilo M. Montanez with violation of the Medical Practice Act, he having been accused of treating various Mexicans in the vicinity of San Bernardino.

Tampa, Florida, March 18, 1927. Dr. George A. Munch, convicted head of a "diploma mill," said to have been operated here since 1921, was sentenced to five years imprisonment in the Federal Penitentiary at Atlanta and a fine of \$1000 in Federal Court today. Notice of an appeal was filed by defense attorneys. (*San Francisco Examiner*, March 19, 1927.) According to the *Journal of the American Medical Association*, September 18, 1926, page 946, "Doctor Munch, one time secretary of the Florida Eclectic Board of Examiners, is alleged to have sold diplomas, presumably from defunct institutions, and to have granted licenses to practice in Florida and elsewhere to persons not properly qualified, for fees ranging from 200 to \$2000." If the "diploma mill" bill, introduced by the Board of Medical Examiners, becomes a law, California will have a most effective method of handling unscrupulous dealings in fraudulent diplomas, state licenses, etc.

The attention of the Board of Medical Examiners has recently been called to an advertising circular bearing the name of Morris Myo Method of Foot Correction, relating to a mail-order course and a diploma granting full privilege to practice the Morris Myo Method of Foot Correction. The records of the Secretary of State do not show any such institution incorporated in California.

Physicians are warned to carefully watch their medical cases and leather bags, there being reported a state-wide theft of such articles from physicians' machines, evidently on the part of narcotic addicts, inasmuch as some of the victims of these thefts report that nothing had been disturbed in their bags except for the removal of the narcotic content.

Our special agent recently reported a warrant had been issued charging Grace M. Norton with violation of the Medical Act at Santa Monica, it being alleged, among other things, that she held a diploma from the "Brotherhood of Light" or the "Great White Brotherhood," recently featured in the newspapers in connection with a court hearing now being held in Oakland.

Dr. A. M. Pond, Upland physician, was within his legal rights in committing himself to the Southern California State Hospital at Patton, Stanley Mussell, former member of the District Attorney's staff, announced yesterday. Doctor Pond asked that he be admitted to Patton for treatment after he pleaded guilty in the Superior Court to driving an automobile while under the influence of intoxicating liquor.—*Ontario Report*, February 5, 1927.

Denied his plea for probation, Dr. Paul Sandfort of Berkeley yesterday was sentenced to pay a fine of \$200 and spend three months in the Alameda County jail for violating the State Medical Practice Act. Doctor Sandfort was accused of practicing medicine without a license after he was retained to minister to a Novato woman in November, 1925. After a long delay he pleaded guilty and requested probation, but the adult probation officer,

Robert Tyson, recommended that probation be denied and Superior Judge Leon E. Gray approved the recommendation.—*San Francisco Examiner*, March 9, 1927.

Portland, Oregon, March 1.—Charged with violating provisions of the Postal Code, Mrs. Lillian G. Stevenson, a physician and surgeon of Astoria, was committed to jail here today by Federal Judge Bean until \$250 is posted. The charges grew out of postcards Doctor Stevenson is alleged to have sent to persons and officials connected with a dispute arising over commitment to the Washington State Children's Home at Spokane of a child she sought to adopt. Wording on the cards, according to postal authorities, was such as to cast reflection on persons who received them.—*San Francisco Chronicle*, March 2,

Mrs. Mabel Burkhard is entitled to damages of \$500 from Dr. Carl Schultz and the Naturopathic Institute and Sanitarium of California, according to a verdict returned by a jury in Judge Bishop's Court, which heard her suit, wherein she charged that the doctor had wrongly diagnosed her ailment as cancer. While the jury decided that she was entitled to damages for negligence, it also held that she must pay a \$315 note which she had given Doctor Schultz on account of his fee, and hospital charges, together with interest and attorney's fees, which make the judgment on the note practically offset the damage award.—*Los Angeles Times*, February 7, 1927.

E. L. Swick was fined \$600, with the alternative of 180 days in jail, by Judge Elwood Henderson of Ventura, sitting in the Superior Court Tuesday, following conviction last week by a jury on charges of practicing medicine in violation of the State Medical Practice Act. In handing down the decision the judge severely scored the defendant, expressing it as his opinion that the law had been wilfully violated and that many people had been charged exorbitant fees for treatment rendered. . . . Swick, through his attorney John R. Stowe, filed notice of appeal.—*San Luis Obispo Telegram*, February 15, 1927.

Responsibility for the death of Elton McMahon, drowned off Pier 46, January 27, was placed on Dr. J. Felton Taylor by a Coroner's Jury verdict yesterday. It was recommended that his driver's license be revoked for one year. . . .—*San Francisco Chronicle*, February 12, 1927.

A. M. Welden, masseur, 434 Second Street, Monday pleaded not guilty to practicing chiropractic without a license. He was arrested by H. A. Miller of the State Board of Chiropractic Examiners and brought before Judge Vaughan where he entered his plea. . . .—*Santa Rosa Republican*, March 8, 1927.

Dr. Walter J. Wenzel, prominent Hollywood physician and surgeon of 1030 North Fairfax Avenue, was under arrest today on a charge of violating the State Narcotic Law. According to Police Officer Boshardt, who made the arrest, Doctor Wenzel sold \$10 worth of morphin to a police operative and accepted marked money.—*Los Angeles Record*, February 25, 1927.

Dr. W. A. Williams, alleged "store-front physician" charged with the "medical murder" of pretty Evelyn Frances Taylor, University of California co-ed, will not know his fate until Tuesday, when his case will be submitted to the jury. Doctor Williams, the prosecution charges, killed the pretty college girl when he operated on her illegally. . . .—*Los Angeles Record*, March 12, 1927.

Charging that neglect and unskillful application of the x-ray resulted in severe x-ray burns that caused the death of M. J. Hanmore, suit for \$30,000 damages was filed today in the Superior Court, Santa Ana. . . .—*Fullerton News-Tribune*, February 17, 1927.

For the modern physician there is no doubt that to study the whole man, regardless of his malady—a practice much in vogue until forty or fifty years ago—is no longer the fashion. Undoubtedly this lack of interest in the man is but a temporary bad habit into which medical students have fallen as a by-product of the idea of the laboratory's infallible efficiency which modern medical instruction delivers to them. The main object of the doctor's endeavor has perhaps for the moment been to some extent obscured by those very technical bacteriological and chemical details which are, indeed, so essential to his success.—George Draper, M. D., *Harper's* (March).

TRUTH ABOUT MEDICINES

New and Nonofficial Remedies

(Abstracts from reports of Council on Pharmacy and Chemistry, A. M. A.)

Note.—These do not represent all of the actions of the Council, but they do represent those remedies manufactured by firms who cooperate with California and Western Medicine in its advertising columns, and thereby with the physicians in California.

In addition to the articles previously enumerated, the following have been accepted:

Bismuth Salicylate in Oil (P. D. & Co.)—A suspension of bismuth salicylate U. S. P. (New and Nonofficial Remedies, 1926, p. 97) in a liquid composed of camphor, 10 per cent; creosote, 10 per cent; olive oil, 80 per cent. Each cc. contains bismuth salicylate, 0.13 Gm. (2 grains). Parke, Davis & Co., Detroit.

Glaseptic Ampules Bismuth Salicylate in Oil (P. D. & Co.), 1 cc.—Each ampule contains 1 cc. of a suspension of bismuth salicylate U. S. P. (New and Nonofficial Remedies, 1926, p. 97.) 0.13 Gm. (2 grains) in a liquid composed of camphor, 10 per cent; creosote, 10 per cent; olive oil, 80 per cent. Parke Davis & Co., Detroit.

Erysipelas Streptococcus Antitoxin (Lilly) (Concentrated Globulin)—An erysipelas streptococcus antitoxin (*Journal A. M. A.*, August 28, 1926, p. 671) obtained by injecting horses subcutaneously with strains of hemolytic streptococci obtained from Dr. A. R. Dochez from human cases of erysipelas lesions, bleeding the horses, and when test bleedings show the serum to have reached the desired potency, bleeding as plasma which is concentrated and refined. Marketed in syringe containers (therapeutic doses) containing 5000 "units." Eli Lilly & Co., Indianapolis.—*Journal A. M. A.*, February 5, 1927, p. 403.

Antistreptococcic Serum (New and Nonofficial Remedies, 1926, p. 339)—This product is also marketed in 20 cc. and 50 cc. piston syringes. Parke, Davis & Co., Detroit.

Ricinoleated Scarlet Fever Antigen Immunizing (Lilly)—This product is prepared from whole broth cultures of scarlet fever streptococci, containing 1000 million organisms in each cc. modified with 2 per cent of sodium ricinoleate. It is marketed in 1 cc., 5 cc. and 20 cc. vials. Eli Lilly & Co., Indianapolis.—*Journal A. M. A.*, February 19, 1927, p. 567.

Ephedrin—The Council on Pharmacy and Chemistry states that the reports which have been issued since its first report was published, warrant the acceptance of the drug for New and Nonofficial Remedies and the recognition of acceptable brands if the firms which market them will agree to be conservative in their claims. The Council report is accompanied by a report of the A. M. A. Chemical Laboratory on the establishment of standards for ephedrin hydrochloride and ephedrin sulphate. The Laboratory's report shows that the ephedrin hydrochloride of the Abbott Laboratories and of Burroughs, Wellcome & Co. meet the provisional standards, but that a pure sulphate has not yet been prepared. However, it appears that the study which is being made in the laboratories of Eli Lilly & Co., gives promise that a satisfactory product will shortly be available. The Council (1) endorsed the report of the A. M. A. Chemical Laboratory and provisionally adopted the submitted standards for ephedrin hydrochloride; (2) it admitted ephedrin to New and Nonofficial Remedies; (3) it voted to accept the ephedrin hydrochloride of the Abbott Laboratories when acceptable advertising is issued; (4) it voted to accept the ephedrin hydrochloride of Burroughs, Wellcome & Co. when it is marketed in the United States and acceptable advertising is issued; and (5) it voted to accept Ephedrin Sulphate—Lilly (formerly called "Fedrin") when the firm has achieved satisfactory standards and when the advertising is found acceptable.—*Journal A. M. A.*, February 12, 1927, p. 482.

BOOK REVIEWS

This column is conducted solely in the interests of California and Western Medicine readers. Critical comment, favorable and unfavorable, purely from the standpoint of the interests of the medical reader, will be made about books selected from the larger number acknowledged in the Books Received column. The advertising columns are open to book publishers who wish to make additional statements about their publications.

Orange County Medical History. By C. D. Ball, President Orange County Medical Society.

In writing this well-printed, beautifully bound volume, Doctor Ball has rendered a distinctive service in the history of California medicine. The chapter on the medical pioneers of Orange County is perhaps, the most interesting to the general reader, but those devoted to the organization and history of the County Medical Society and the development of public health are usefully constructive. Short biographical sketches (mostly illustrated) of pioneers and living physicians add to the value of the book. Orange County Medical History establishes an excellent groundwork for the historian who must some day extend and dramatize this most interesting phase of the history of California.

Doctor Ball is to be congratulated on his research and industry, and on the success of a pioneer effort in a neglected field of medicine.

This Business of Operations. By James Radley. The Digest Publishing Company, Cincinnati.

An entertaining little story relating the experiences of a patient before, during and after an operation. This story has been better told by others, but Mr. Radley is such an enthusiastic booster of physicians, nurses, hospitals, that his message is a good one to read and perhaps pass on to selected patients.

Pediatrics. By various authors. Edited by Isaac A. Abt. Vol. VIII. Pp. 102. Illustrated. Philadelphia and London: W. B. Saunders Company, 1926.

Volume VIII of Doctor Abt's "System of Pediatrics" dealing with the diseases of the skin, ear and eye, as well as the subject of infant hospitals, medico-legal questions in the practice of pediatrics, tumors of infants and children, and parasitology in childhood, may well be ranked among the leading works in the field of pediatrics.

The book is well written, well organized, and extremely interesting. Doctor Abt has had as collaborators for this volume such men as Drs. John Dodson, Oliver Ormsby, Oscar Schultz, George Shambaugh, and Casey Wood. They have all contributed chapters dealing with their own specialty.

The chapter on skin affections of congenital origin by Dr. Clarke Finnereed is especially well organized and written, as is the excellent article on animal parasites by Dr. Henry Ward.

All in all, this volume of Doctor Abt's is a valuable contribution to any medical library and will well repay anyone to read it carefully.

Plastic Surgery of the Head, Face, and Neck. By H. Lyons Hunt. Illustrated. Philadelphia and New York: Lea & Febiger, 1926.

This book is fairly comprehensive in its scope in spite of its limitation to 400 pages.

The historical review of the opening pages is an excellent account of the development of plastic surgery.

Other chapters deal with the application of modern principles of plastic surgery as related to repair of defects, especially those of the face. The author has drawn freely on methods and case illustrations of various authorities in this field, thus collecting accepted technique to a very recent date.

The brevity of the volume has, to an extent, curtailed its value, the scarcity of detail in description of technique of the operative procedures making the volume of less value to the general practitioner than to the specialist. This fault is in part offset by the pleasing and lucid style of the author, and the absence of ponderous and unnecessary reiteration.

Goiter and Other Diseases of the Thyroid Gland. By Arnold S. Jackson. Pp. 401. Illustrated. New York: Paul B. Hoeber Company, 1926.

Another comprehensive and authoritative textbook on diseases of the thyroid gland has come to us from the hands of one thoroughly skilled in this more or less specialized field of medicine. This volume is all the more appreciated on account of the paucity of good works on the subject.

Jackson clearly outlines the generally accepted classification of goiter and details methods of dealing with each type. The carefully controlled method of administering iodine in the treatment of adolescent goiter and Graves' disease, is worthy of close scrutiny. Equally important are his reasons for not giving iodine to patients with adenomata.

The importance of the basal metabolic rate is over-emphasized. He should have stressed the necessity of more exacting clinical study and the interpretation of these findings, for we all know how often a poorly made laboratory test has been the means of the wrong kind of treatment at a critical period in the disease.

No physician should attempt to treat disease of the

thyroid gland until he thoroughly understands the underlying gross and microscopic pathology, and in this Jackson is very clear. The cuts and descriptions of the pathology of the thyroid gland are excellent.

His preoperative preparation of the patient is to be commended, and the operative technique, as given, is worthy of intensive study. It is to be regretted that he finds it necessary to cut the ribbon muscles, because with proper skin-flap dissections, this can be eliminated. If the wound is dry after the resection of the diseased portions it is never necessary to leave a drain in the incision. Jackson sutures the platysma muscle separately, a procedure which always gives a good cosmetic result—a point not to be overlooked in any operation, especially on exposed areas of the skin where the preponderance of sex is on the female side, as it is in this group of diseases.

There is included a rather formidable list of publications given as references.

Taken as a whole the book is excellent, but offers practically nothing new in the treatment of disease of the thyroid gland to those already familiar with the subject.

The Thyroid Gland. By Charles H. Mayo and Henry W. Plummer. Pp. 83. St. Louis: C. V. Mosby Company, 1926. Price, \$1.75.

Amidst the plethora of writings that but serve to intensify the obscurity that surrounds the subject of endocrinology it is life-giving and stimulating to have the recent volume, "The Thyroid Gland," by Mayo and Plummer.

Restraint in praise of the book is almost impossible. Characterized by brevity, succinctness and clarity, the facts of the thyroid gland as medical teachers know them are set forth admirably.

Mayo's discussion of the general subject is complete and illuminating and most pertinent. Plummer follows with details eliminating the nonessential and giving us the best classification and definitions yet proposed.

His summation and expression of his experience and beliefs regarding treatment is admirable and, while brief, is far from being an "outline." He discusses methods for combined treatment and control which should be more extensively followed than they are.

There are two factors in particular which he dwells upon interestingly and with conviction, namely, that in those patients with auricular fibrillation the inhibition of digitalis vastly improves the postoperative convalescence; and his emphasis of the dual dysfunction wherein at times both iodine and thyroid must be exhibited in conjunction to produce the desired result.

Among all the books and brochures published upon this perennially fascinating condition there is none that is more informing or practical for the education and use of student, practitioner or specialist.

Fundamentals of Dermatology. By Alfred Schalek. Pp. 239. Illustrated. Philadelphia and New York: Lea & Febiger, 1926. Price, \$3.

This book of about 200 pages is admirably adapted for use by the medical student and general practitioner; the fundamentals are presented in a concise and thorough manner, and the illustrations are particularly clear.

The alphabetical arrangement of diseases which has been used here is a departure from the usual, however, the classification given immediately under each disease title is entirely adequate and perhaps less confusing to one not making a special study of dermatology.

After a year's experience as president of the Academy of Medicine of Toledo and Lucas County, Dr. Edward J. McCormick, in his presidential address recently delivered, pointed out the need for greater cooperation among physicians and the value of organization activities as a means of stemming the tide of social medicine.

"Many there are," Doctor McCormick observed, "who feel that socialized medicine is only a myth—an imaginary 'bug-a-boo'—ammunition for the pessimist and calamity orator. Those of us who have shared tents and billets with fellow medical men on the continent during the great war, or to those of us who have practiced in England—and there are several—state medicine represents a horrible aspect.

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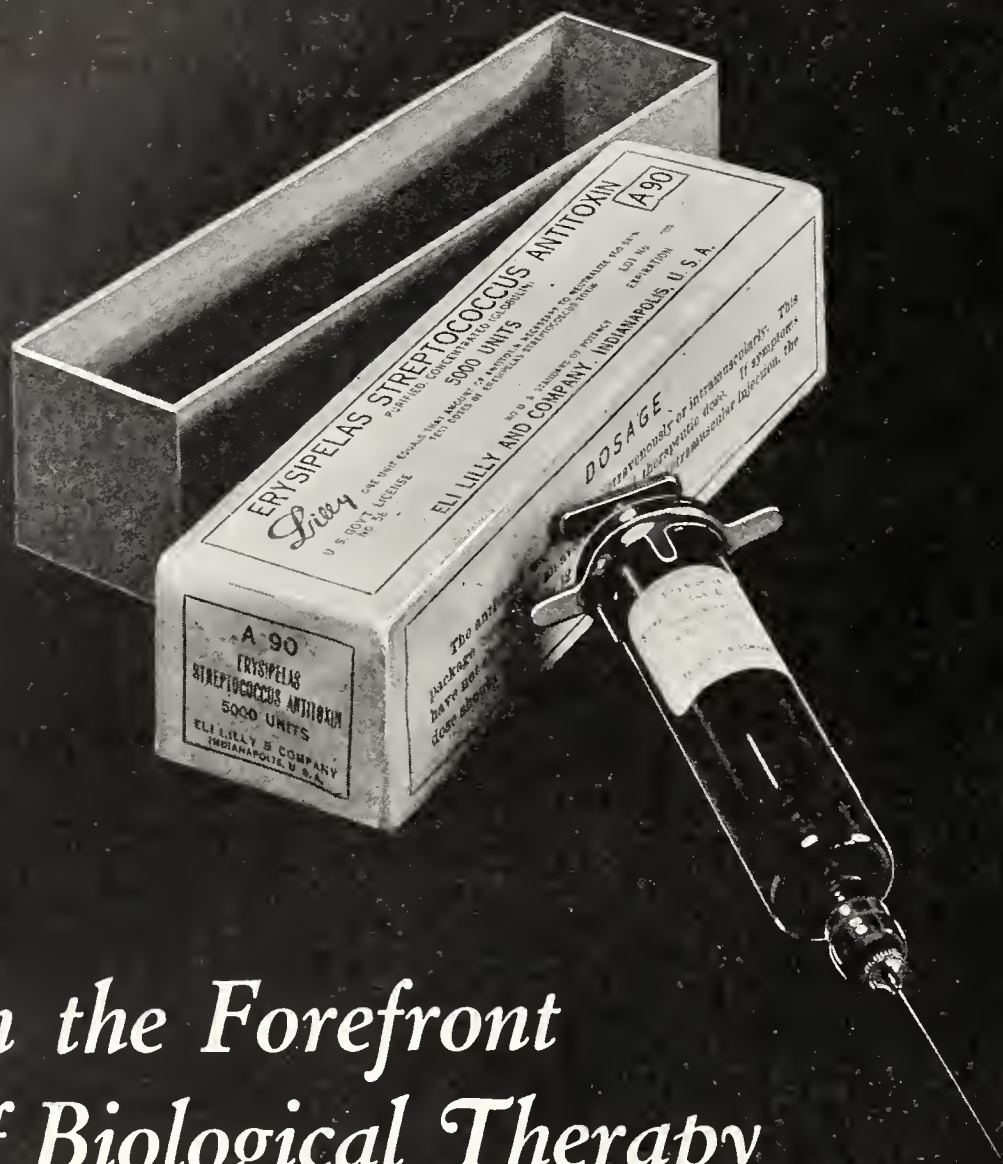
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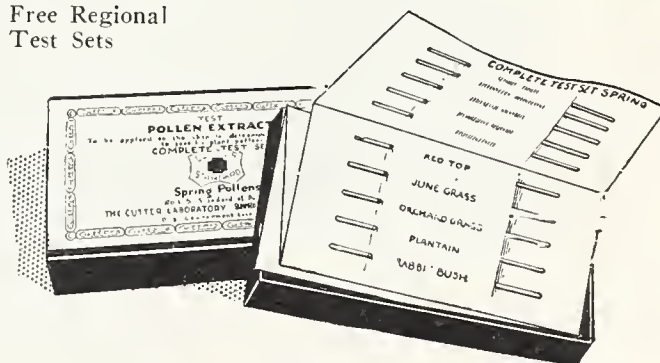
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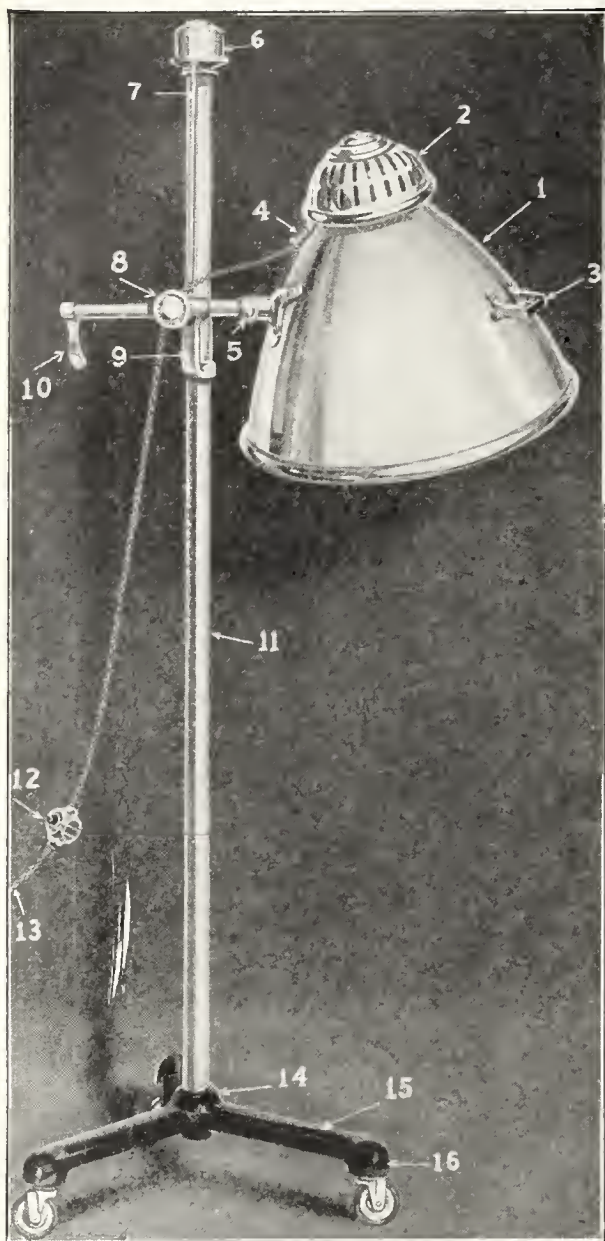
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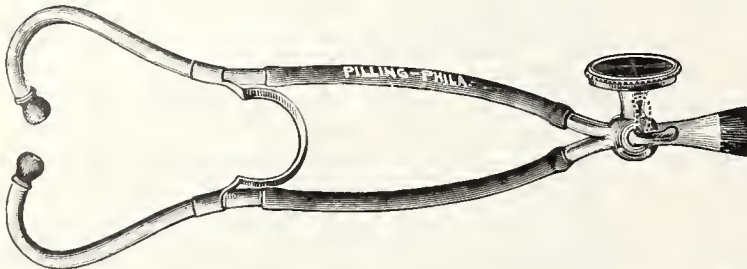
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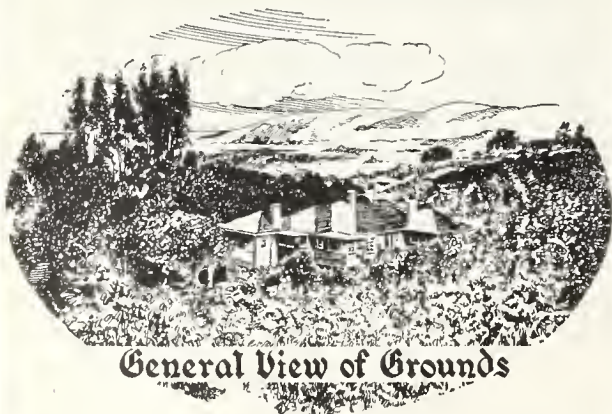
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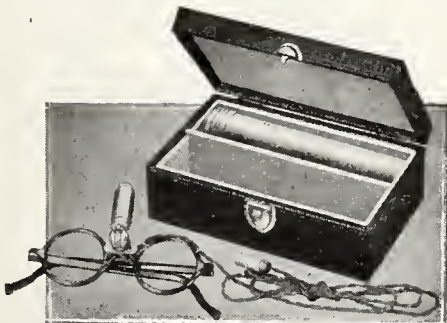
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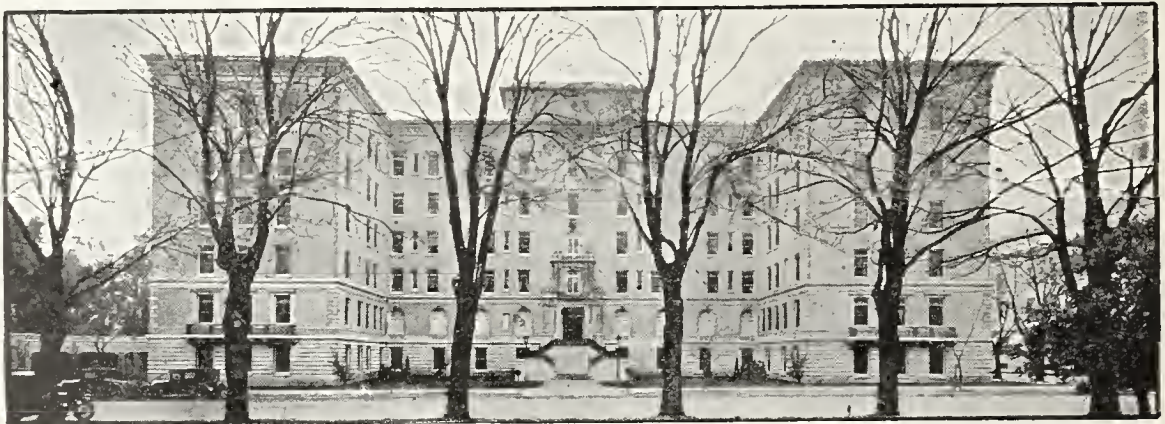
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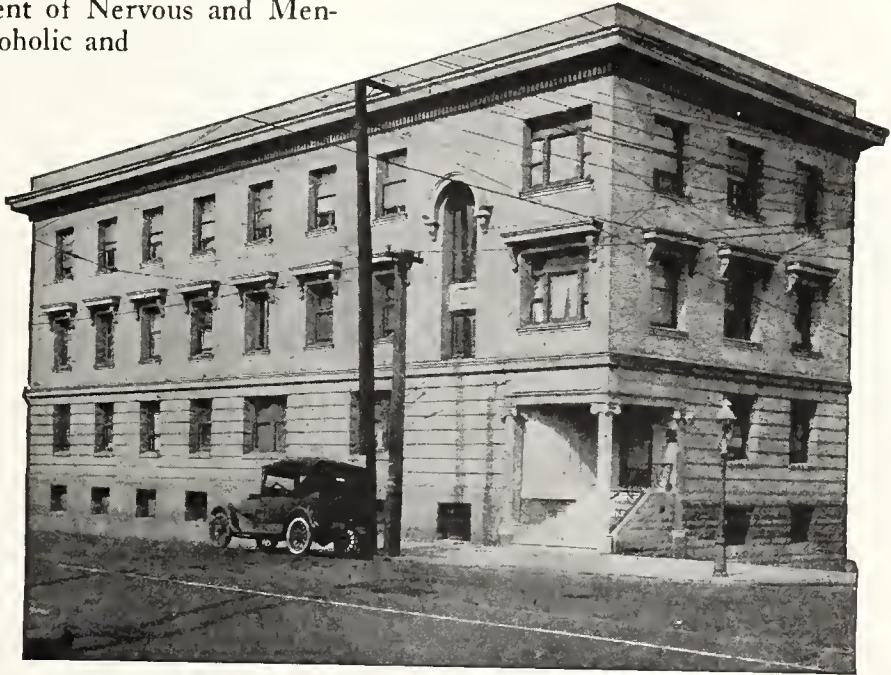
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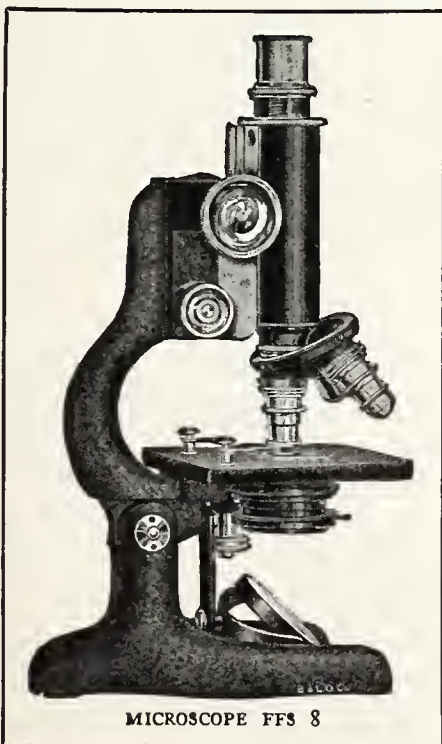
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Johns Hopkins School of Medicine has announced the establishment of a chair in medical history, a grant for which was recently made by the Rockefeller Foundation. President Goodnow, in announcing the gift and the way in which it is to be used, stated that its purpose is to provide medical students with a cultural background which will make the young physician more than a technical machine. Dr. William H. Welch, who is named as the first occupant of the new chair says: "Although a knowledge of medical history is often considered chiefly as an ornament in the case of a physician, it is more than that. It is an asset to successful practice, and to the pursuit of medical science."—Editorial, *Ohio State M. J.*



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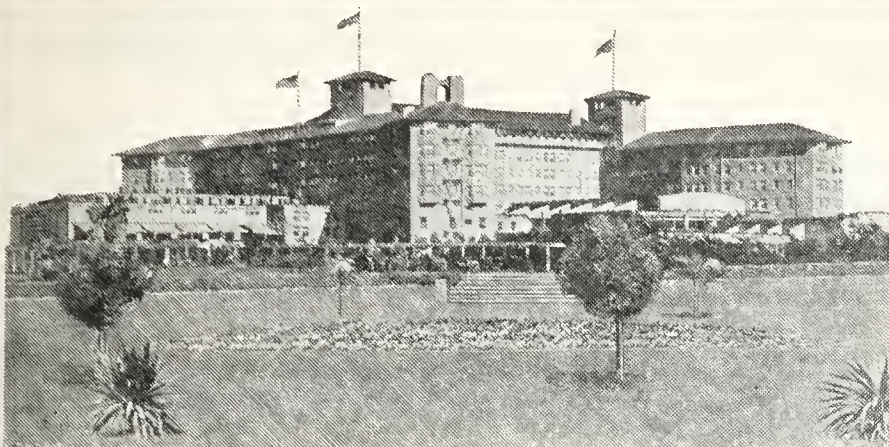
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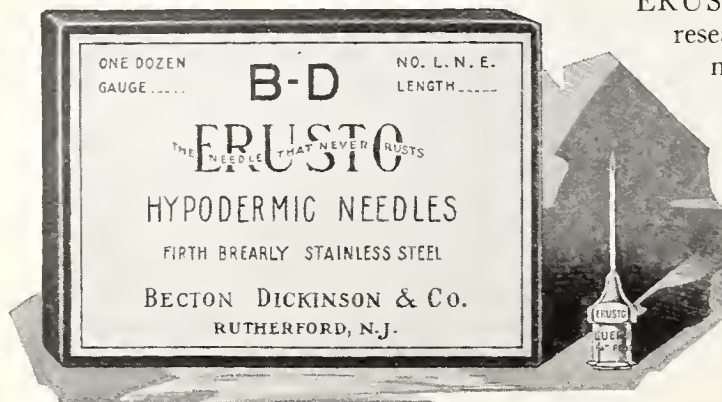
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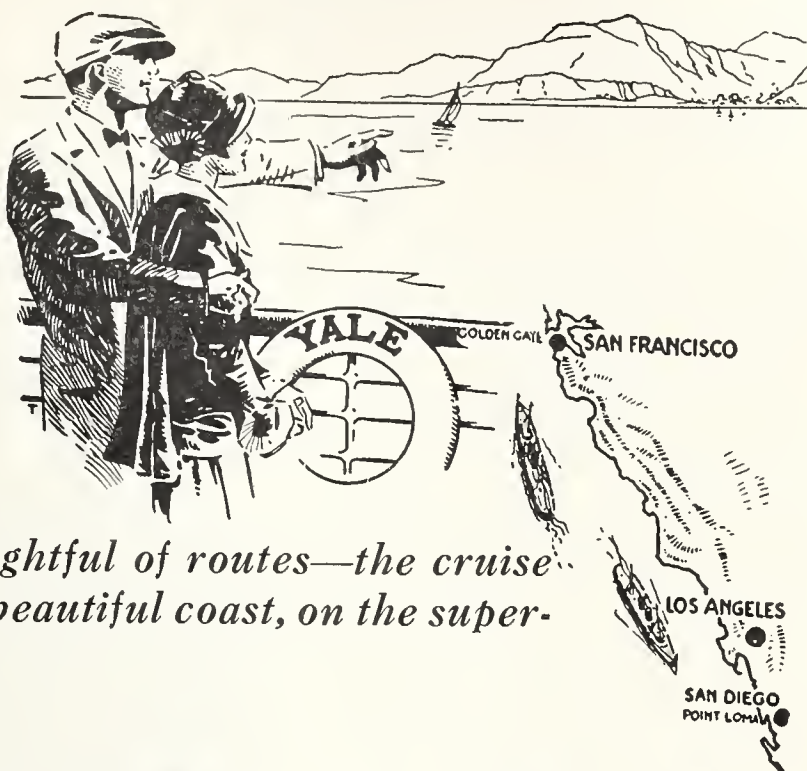
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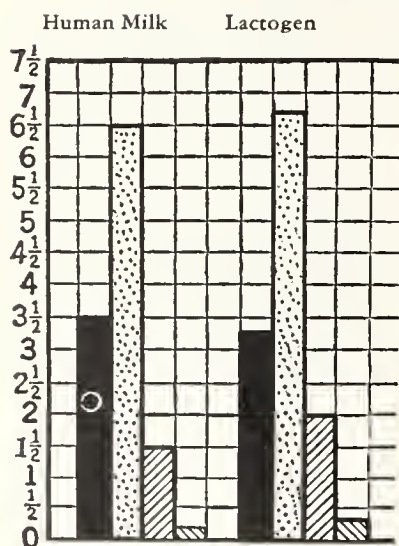
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—DR. HOLT, Page 178.

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—DRS. McLEAN and FALES, Page 162.

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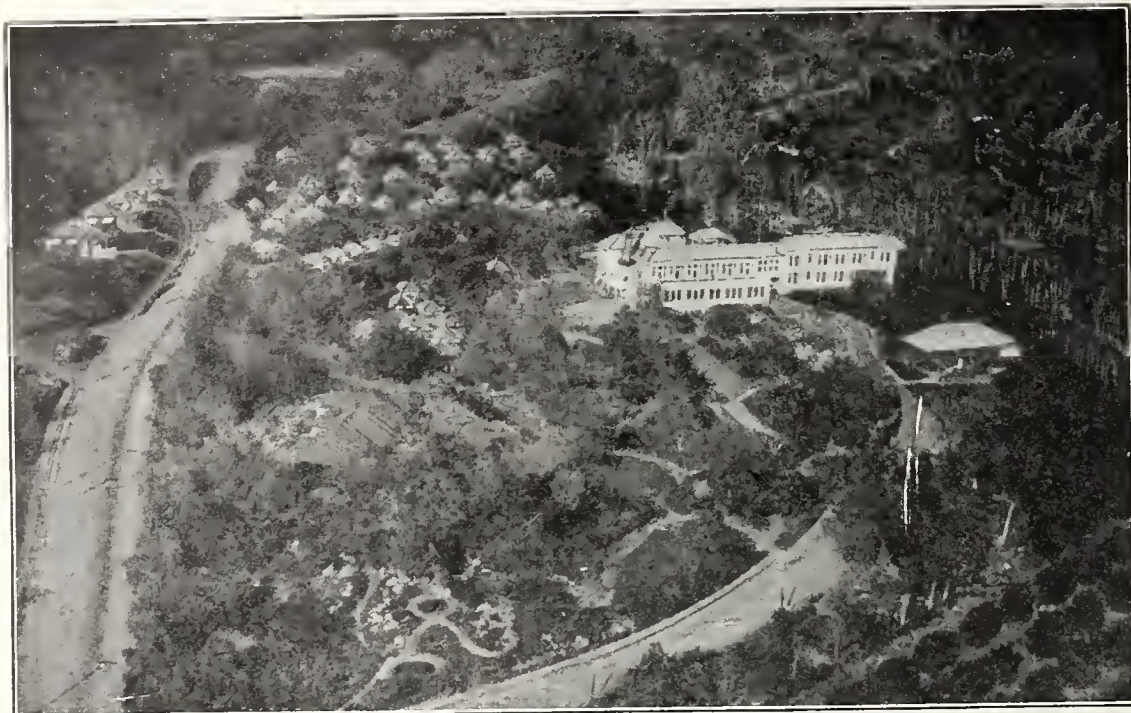
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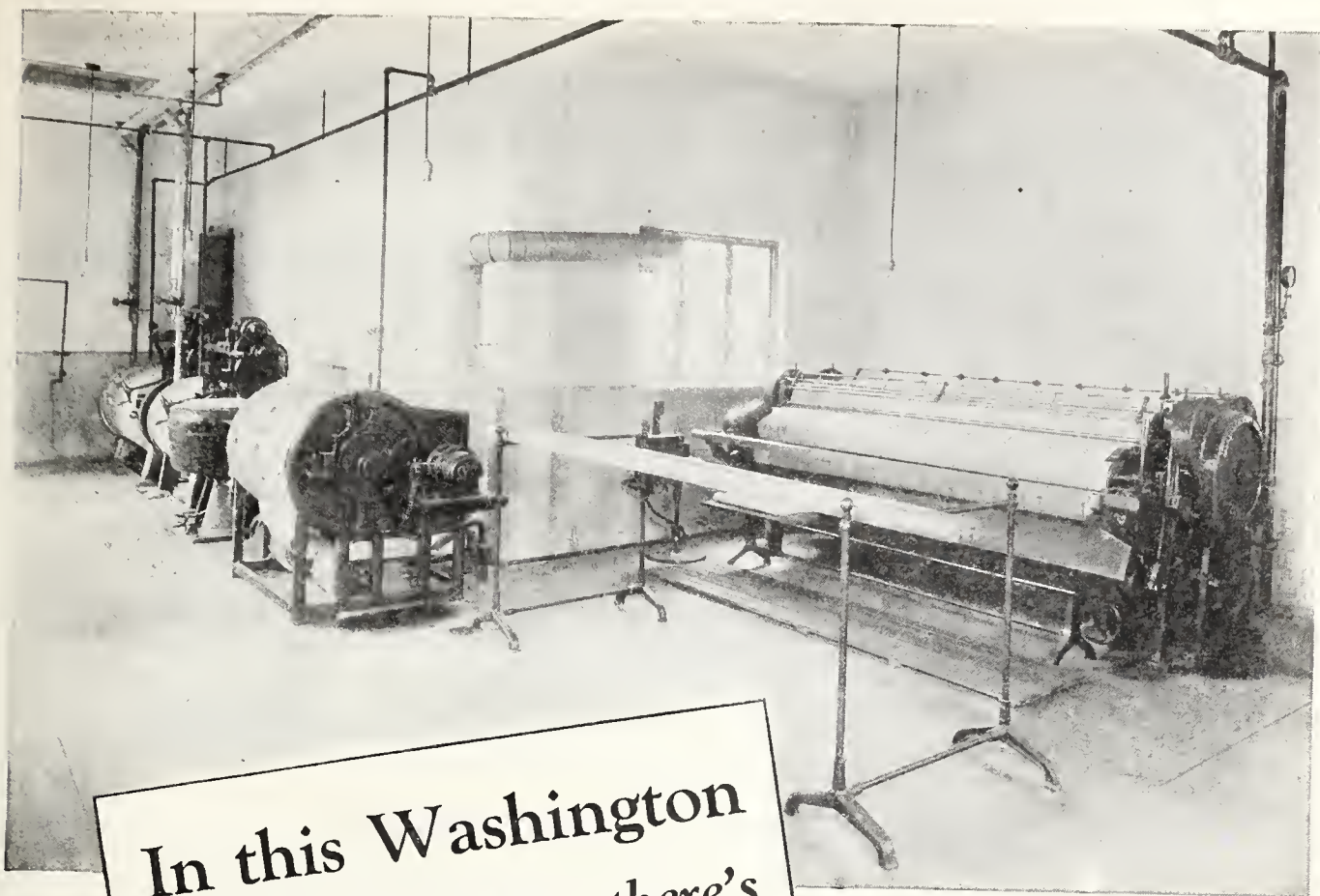
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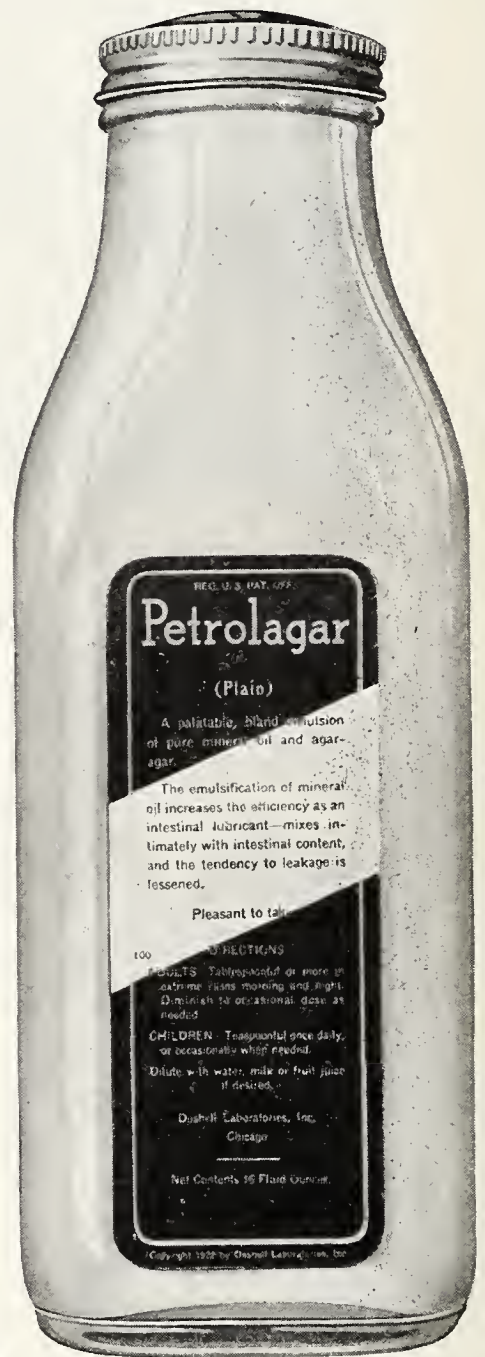
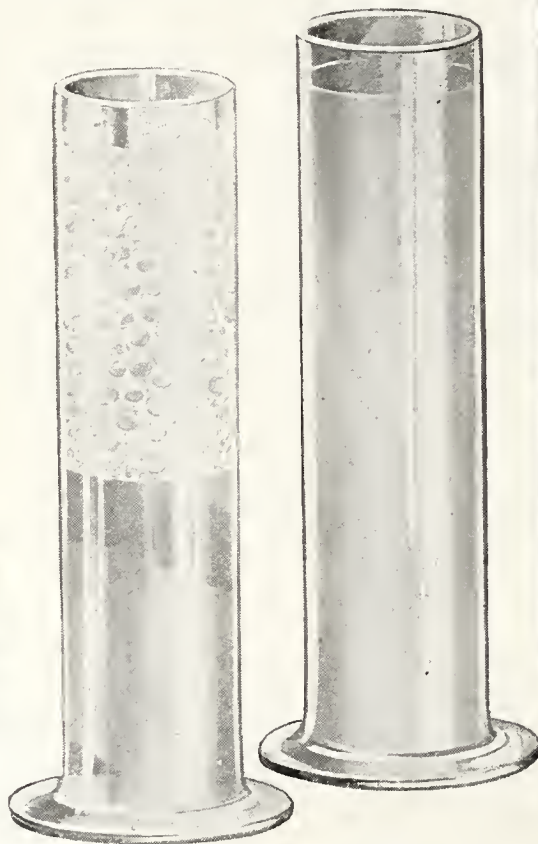
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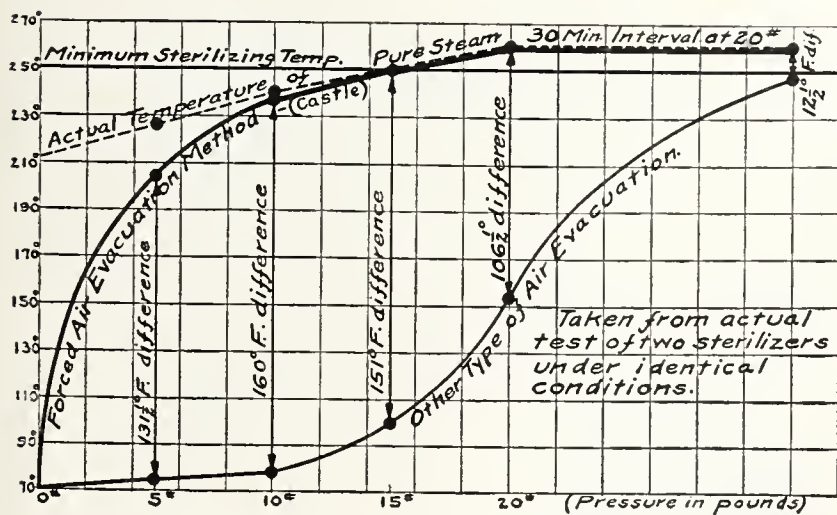
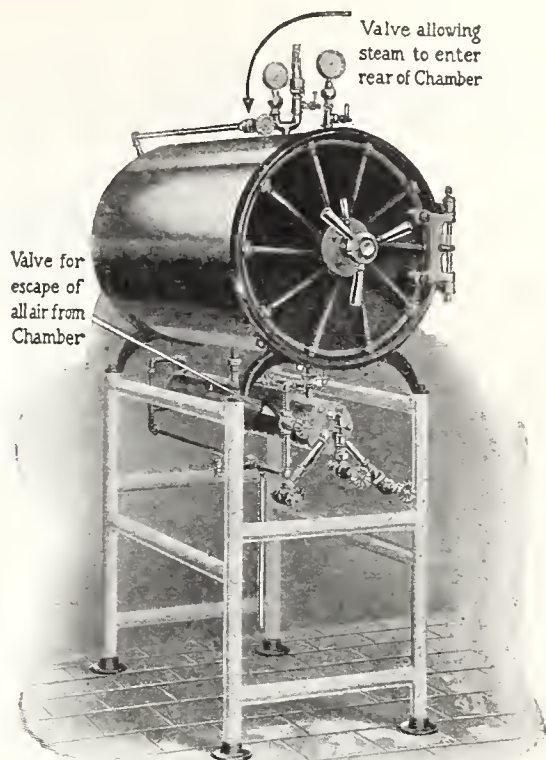
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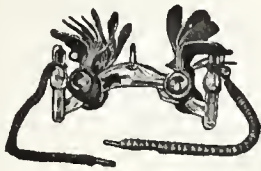
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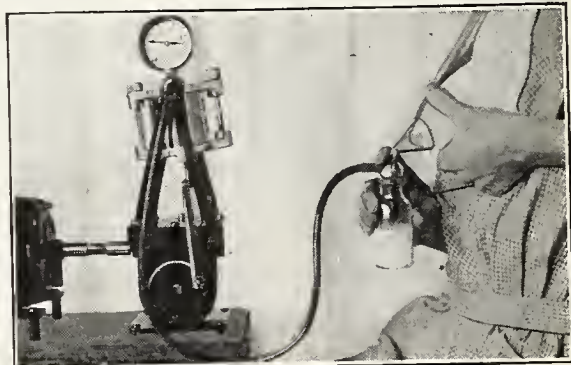
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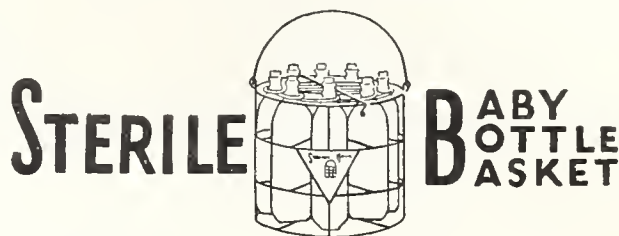
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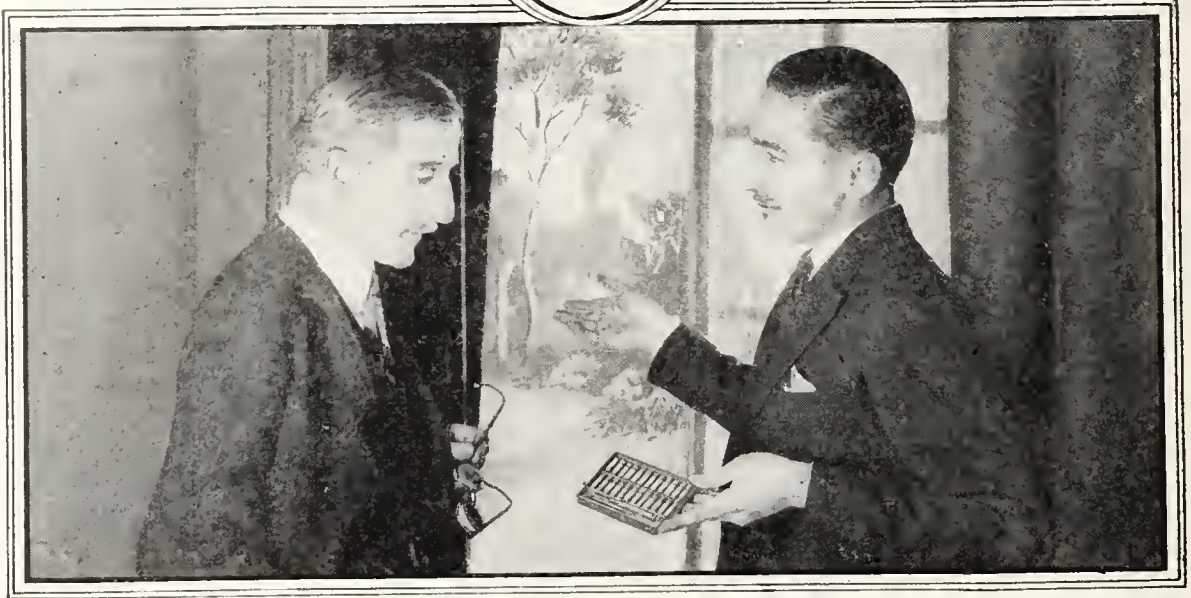
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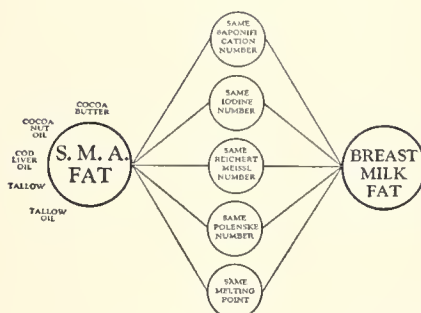
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Number 5

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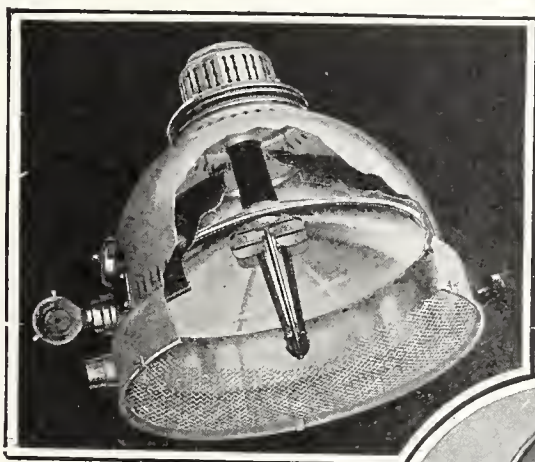
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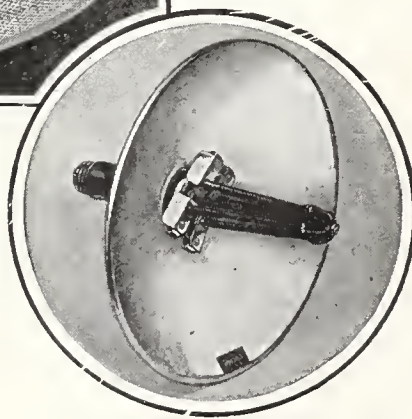
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VOLUME XXVI

MAY, 1927

No. 5

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| COLFAX SCHOOL FOR THE TUBERCULOUS For the Treatment of Tuberculosis Colfax, Calif. | O'CONNOR SANITARIUM General Hospital Race and San Carlos Streets, San Jose, Calif. | SUTTON'S Rest and Recuperation Los Gatos, Calif. |
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Tuberculosis. By Edward R. Baldwin, S. A. Petroff, and Leroy S. Gardner. Review copy by courtesy of the publishers, Lea & Febiger, Philadelphia.

A Manual of Materia Medica. By E. Quin Thornton. Review copy by courtesy of the publishers, Lea & Febiger, Philadelphia.

The Clinical Interpretation of Blood Chemistry. By Robert A. Kilduffe. Review copy by courtesy of the publishers, Lea & Febiger, Philadelphia.

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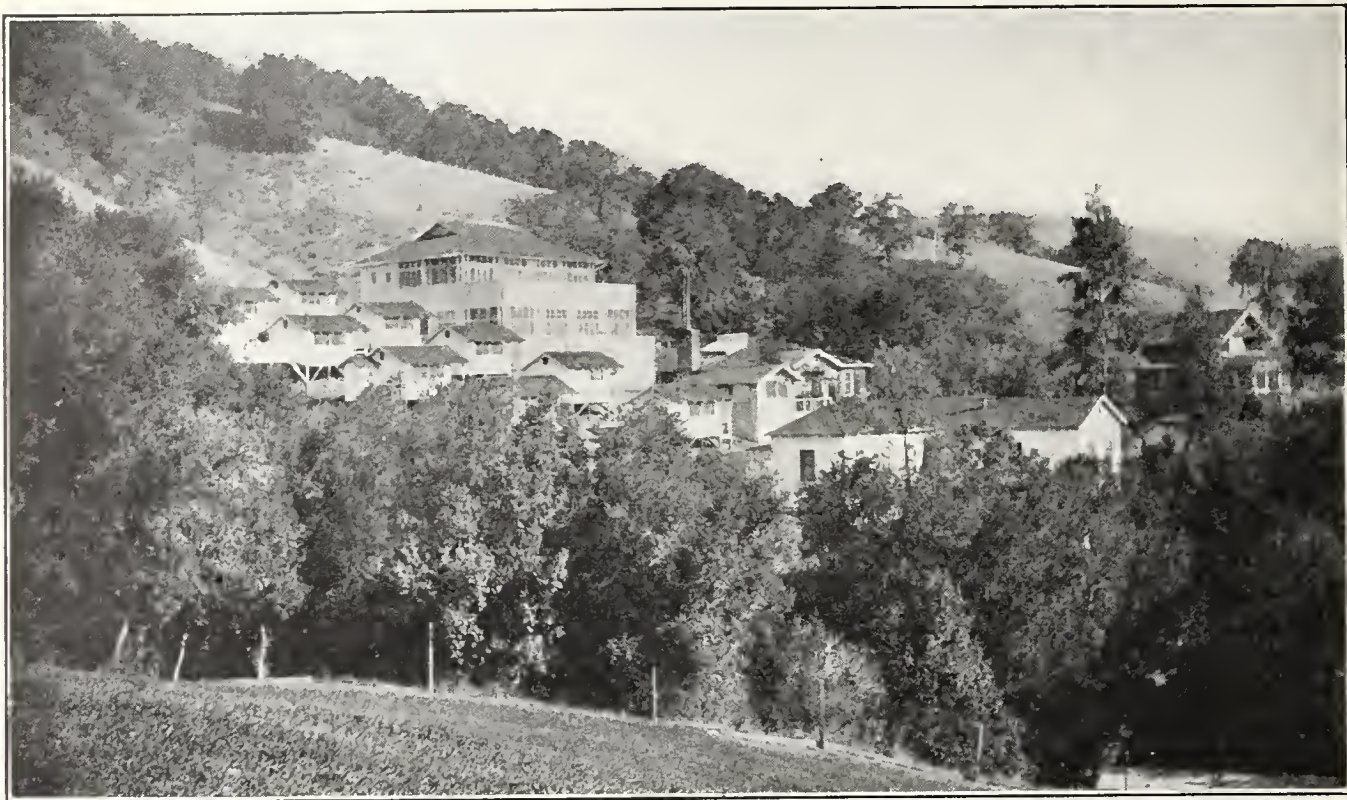
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A North Carolina senate committee, a few days ago, killed a proposed bill which aimed to give physicians whose licenses have been revoked the right of appeal from the State Board of Medical Examiners to the superior courts of the state. The bill did not secure a single favorable vote in the committee; it was opposed by representatives of the State Board of Medical Examiners and the State Board of Health.—*Federation Bulletin.*

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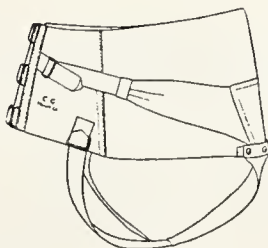
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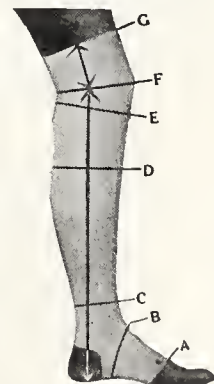


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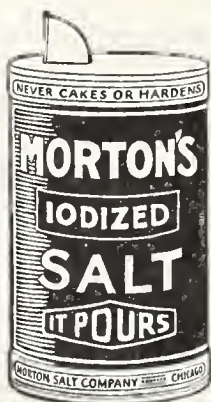
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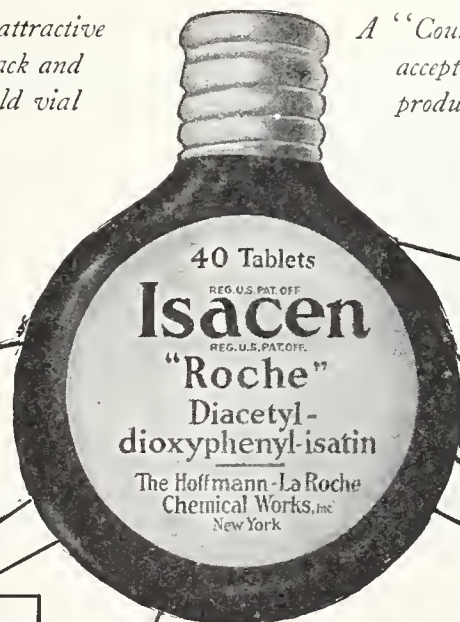
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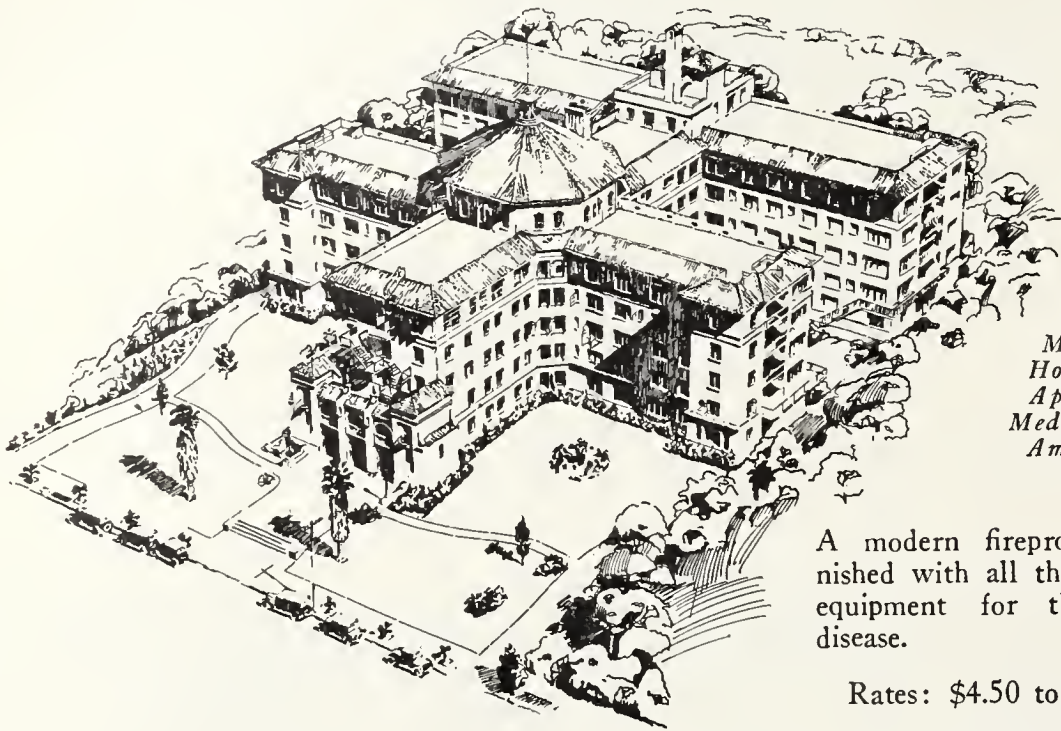
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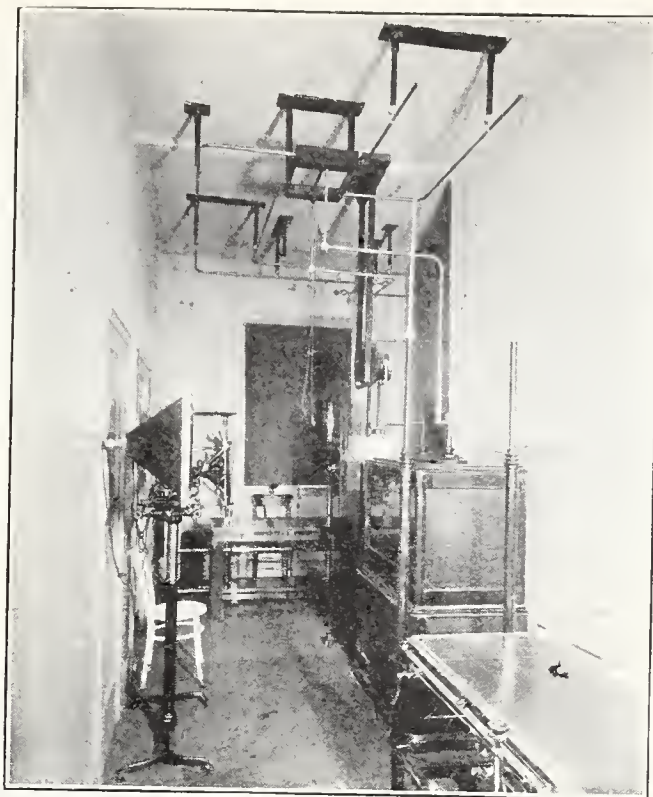
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Maine is one of the few states that have not accepted the Sheppard-Towner bill and money. An editorial in the *J. Maine M. A.*, January, 1927, states that statistics for Maine for the past year show a greater decrease in infant and maternal mortality than in a great many states that have accepted the Sheppard-Towner Act.—*Nebraska M. J.*



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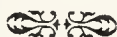
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Governor Baker of Florida has requested the legislature to abolish numerous boards, commissions and bureaus which he considers superfluous; among these are the Board of Nurses' Examiners and the Board of Hair Dressers and Cosmeticians. The governor suggests the functions of these boards be transferred to the State Board of Health.—*Federation Bulletin*.



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Popular Medical Information—Few physicians will challenge the statement that the public should have all the reliable medical and health information it is capable of absorbing; but controversy arises over the methods to be employed in promoting the dissemination of knowledge. Differences in the points of view of physicians—ethical ones—and newspaper editors—honest ones—are difficult to reconcile. Physicians want causes, principles and methods popularized with a minimum of accent on personalities; newspapers and magazines, on the other hand, almost universally attempt the same end through the primary promotion of individuals.

Examination of the headlines in our press reveals the universal practice of popularizing, even dramatizing, persons rather than matters. This is inevitable and uncriticizable because persons buy papers, and our public rightly or wrongly have come to estimate things in terms of the personalities of those who promote them. Most physicians object to the utilization of this principle in the popularization of medical knowledge because it (1) unduly promotes the personal interest of one physician-publicist over that of his colleagues; (2) often leads to unwarranted public acceptance of one physician's opinion as an authoritative expression of the medical profession as a whole; (3) gives to the charlatan or quasispectable physician opportunities that ever have been his chief stock in trade in the promotion of his own unsound wares; (4) leads the public into a mental morass calculated to destroy their confidence in all medical teachings and practices; (5) tends to create in the public mind exalted ideas of the importance of minor health matters to the detriment of those essentials on which educated physicians agree as being fundamentally important; and (6) creates favorable opportunities for scores of spurious "specialists" who hover on the fringes of medicine to promote their half-baked ideas, ignorant prejudices, or selfish propaganda, in the name of medical sciences.

More and more editors of influential newspapers and news distributing agencies are recognizing the point of view of medicine and are beginning to meet the situation intelligently by various devices. Some newspapers have reliable medical editors on the staff; others call on reliable medical organizations for help before they "break" their medical stories.

Dramatization of the essentials of health, day after day, to meet the requirements of the public press is like an attempt to dramatize the ten commandments. Few physicians have been able to do this, as is shown by the short newspaper lives of many honest physicians who

(Continued on Page 621)

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Popular Medical Information

(Continued from Page 617)

have attempted it. With few exceptions, as the physician's value as newspaper copy increases, his influence and the respect in which he is held by his colleagues, and a large percentage of the intelligent public, decreases. Few nonmedical writers have been able to popularize safe, sound medical information as it must be prepared for newspapers and magazines day after day for any considerable period.

A fundamental step toward the solution of the problem of disseminating plain facts about health and disease was established when the American Medical Association created *Hygeia*, the Health Magazine, with medical and nonmedical contributors, and determined to select for publication only purchased contributions based on merit, public appeal, and medical soundness. A second important step was the issuance of the "clip sheet," prepared from that publication for release to the public press. A third important step has been to place at the disposal of interested newspapers the remarkably complete and accurately filed information in the archives of the American Medical Association. This assists them in distinguishing between the spurious and the sound in the stories of alleged medical discoveries and provides the records of authors who concoct such stories. Hundreds of our better newspapers are now constantly utilizing this service to the public good. The two most powerful forces for better health are approaching a common method for rendering an essential service.

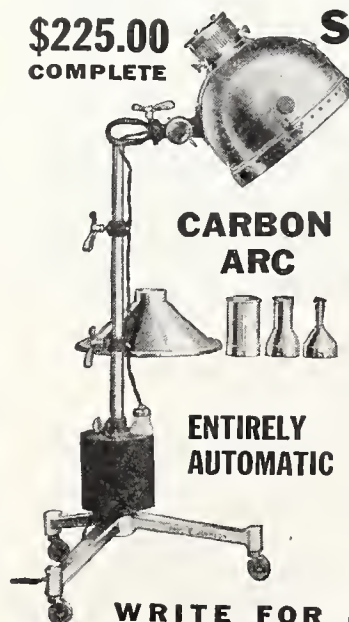
Such practices, varying in their details, are growing in favor, and the central idea is being strengthened by public and private conferences between representatives of the public press and of physicians' organizations taking place with increasing frequency in many places. All in all, the outlook for the more extensive and intelligent promotion of popular medical information through the public press is encouraging.—*Jour. A. M. A.*, January 29, 1927.

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CALIFORNIA AND WESTERN MEDICINE

VOLUME XXVI

MAY, 1927

No. 5

THE EVOLUTION OF ORGANIZED MEDICINE

By WILLIAM T. McARTHUR, M. D.*

PRESIDENTIAL ADDRESS, CALIFORNIA MEDICAL ASSOCIATION, FIFTY-SIXTH ANNUAL SESSION

LITERALLY, the word evolution means the "coming out of anything as a complete whole"—or a process by which the potential becomes actual. It implies more than a mere unfolding. In our modern usage it might be defined as the orderly procession of a type from one condition to another. There is a gradual growth or change—a something added to, an upbuilding, rather than an unfolding process. Lamarck's theory of evolution emphasizes the influence of desire and effort on the part of the organism in determining the direction of evolution.

In many of its stages of growth and change it may mean development without progress. Numerous movements in the evolution of society have proved to be only throwbacks, a reversion to a lower degree of civilization. As an instance, Patrick, in *The Scientific Monthly*, July, 1926, cites the reaction following the great war—a war which was to end all wars and to be followed by a condition of peace and brotherly love. Instead of this, society lost much of refinement in manners and morals gained through the ages; the popularity of the stage and of much of the literature depended on its vulgarity and indecency; and crime increased and spiritual values gave place to the material.

And in the evolution of organized medicine we can recall many things which, although hailed by the profession as wonderful steps in advance, yet proved to be not only valueless but harmful, and

which were followed by a reaction on the part of the public, detrimental to our calling.

It is, therefore, necessary for organized medicine to have the desire and effort to pursue a policy of introspection with a strong searchlight to see that this process of evolution in its upbuilding, in its adding to, in its growth and change, is really in the line of progress. My time will not permit an exhaustive survey, but if we examine medical progress carefully during the present century, we can measure the amount of possible growth and advance and at the same time determine the wisdom of the direction in which medicine is moving.

It is considered good business for any organization to have an annual audit; to evaluate the business done; to examine and appraise its stock in trade; to look carefully into the profit and loss account; and, after a thorough investigation, to initiate changes where such seem advisable. A similar policy on the part of organized medicine would be beyond question an act of wisdom, for it would bring to light the things of proved value and enable us to discard all that is obsolete or of no particular benefit.

A careful audit indicates success or failure. By studying the successes, we learn what to do in the future; by analyzing the failures, we know what to avoid. "Success depends as much on what we don't do as on what we do."

At the beginning of the twentieth century there was brought forward to the account of organized medicine a credit of immeasurable value to humanity, for all humanity was the beneficiary. This stock in trade represented research, not only into the cause, prevention, control, and cure of disease, but methods like anesthetics for the relief of suffering, and the application of scientific discovery to the various problems of medicine and surgery. It included our code of ethics coming down through the ages, standing firm and strong—a veritable Rock of Gibraltar against the storms of prejudice and pas-

* William Taylor McArthur (2024 Southwestern Avenue, Los Angeles). M.B. University of Toronto, 1895; F. R. C. S. Edinburgh, 1901. Graduate study: London and Edinburgh, 1900 and 1901. Previous honors and services: Examiner recruits during World War; pensioner and examiner British and Canadian governments during and following World War; ex-president Los Angeles County Medical Association; assistant visiting surgeon Los Angeles General Hospital; instructor surgical anatomy Los Angeles Medical Department, University of California. Present hospital connections: Member staff California Lutheran Hospital. Scientific organizations: F. A. C. S., Los Angeles County Medical Association, C. M. A., and A. M. A., also American Public Health Association; life member Edinburgh Obstetrical Society. Present appointments: Chairman Board of Trustees Los Angeles County Medical Association. Practice: Retired from active practice. Publications: Articles on medical and public health topics.

sion that at times assailed the profession both from within and without. It was a declaration in its value to mankind second only to the Magna Charta, for its foundation rests upon honesty and fair dealing in the relation both of physicians to physicians and physicians to their patients. True, it requires modifications and amendments to keep in line with the rapidly changing social conditions, but such do not affect its general basic principles. The fact that its tenets are violated by individuals does not lessen its value, for such has been the history of all laws and commandments both material and spiritual given for our guidance.

A recent asset, registering a great step in advance, one that will mark an epoch in the history of our profession, is the standardization of hospitals. No other movement undertaken by physicians during the past century, in the way of furnishing protection to the sick against careless diagnosis and incompetent treatment, has resulted in greater benefit. It is an asset of which every doctor should feel justly proud. Only a few years ago diagnosis written on a chart meant, in too many of our hospitals, but little thought, little observation and investigation on the part of the physician, because he was not required to justify his diagnosis before a hospital staff composed of his colleagues. But the standardization of hospitals, the requirement for even the minimum standard, compels doctors to observe closely and to think intensely. To see and to think are two infinitives, which, if they received more attention from physicians, would make the use of the scalpel and the dispensing of powders and pills less necessary.

Now, before a surgeon writes on the chart with pen and ink his preoperative diagnosis, he will have exercised his gray matter considerably, because he is aware he is going on record for all time; on record, too, subject to the criticism of his confrères, if he has failed to make use of every means of diagnosis at his disposal.

But the standardization of hospitals has done more than assist in making physicians closer observers and more intelligent thinkers. It has made the records of patients available and has made statistics more reliable; has changed hospitals not only into educational institutions for doctors, interns, nurses, and the community, but has converted them from mere boarding-houses into establishments where those impaired in health can receive efficient care. An inventory will show enormous profits distributed in health dividends to the sick and afflicted. He is a wise man who, when in need of hospital care, adopts the principle "safety first" by insisting on a standardized institution.

In this evolutionary movement California stands in the front row with the three sister states of New York, Pennsylvania, and Illinois. The time is not far distant when the community will demand standardized hospitals, especially those receiving public aid. Two provinces in Canada have already enacted legislation making such standardization compulsory. The chief retarding influence, and one of our greatest social evils, is that of sordid politics. Why men in public office should reduce the rating and effi-

ciency of a hospital ministering to the sick by making appointments other than on merit, passeth all understanding. Yet this is done and will continue to be done until this evil in our political system is recognized and crushed by an enlightened public conscience.

While there are countless organizations engaged in some form of medical service, the main stem of organized medicine in the United States consists of national, state, and county associations. The county society is the unit; its efforts and desires, reflected in the activities of the state association, indirectly influence the whole policy of our national organization. It logically follows that organized medicine depends for its success upon the honest effort and desire of the individual doctor to promote and perform the needful duties of his county society. The average physician is inclined to look to the national or state association for the bringing about of results, but he should look nearer home. The work of his county society, and especially of his own individual self, are the two main factors that will influence the evolutionary process in the direction of progress.

We suffer a loss in our cities by having a multiplicity of medical organizations; we are overorganized. Such division of forces results in small attendance, little enthusiasm and inspiration, lack of unity and practically no co-ordination of effort. Every physician should resolve to let the meeting of no other organization come before that of his county society. Its field is sufficiently large for the mutual, intellectual and scientific betterment of its members, and furnishes ample scope and opportunity for all efforts to improve and protect the health conditions of the community. On its walls there hangs an invisible sign, "Workers Wanted." The remuneration is intangible. It consists in that sense of satisfaction which comes to the heart of the worker through the knowledge of duty performed, and which is a greater compensation to life than anything received in pay envelopes.

Our national organization, after weighing carefully the expressions of the various delegates from the state societies, sees the need of public education in health matters. The army draft for the war demonstrated such a high percentage of unfit that there followed a desire and public demand for information relative to health. Clinics of all kinds sprang up over night like mushrooms, many of them conducted by social workers with no knowledge of either health or disease. Newspapers and magazines are prone to fill their columns with articles on health written chiefly by cultists, lay faddists, or pseudoscientists with an itch for publicity or commercial gain. The use of the radio, a recent invention, assures a large audience for hokum peddlers, who keep the very air we breathe polluted with all sorts of doctrines and nostrums. To the enlightened mind their broadcast messages serve as so much static, but are accepted by the unenlightened public as the latest scientific genuine gospel. As a consequence, instead of information on health matters, the public is being fed largely on misinformation.

In an endeavor to overcome this condition, the American Medical Association is doing splendid

work through its magazine *Hygeia*, with articles in other magazines, and through a press syndicate. It needs assistance and sends forth a Macedonian cry to the state and county associations for help. The task is a big one propaganda of intelligence spreads slowly against propaganda of ignorance. Our obligations as well as our liabilities are apparent; our duty is clear. It lies in an effort to give the public the truth, for only through the truth can a people become free.

Our state association was one of the first to recognize the need for education of the public in health affairs. For a time, it tried the plan of delegating some of these responsibilities to a separate organization which, be it said to its credit, rendered excellent service in this field of public health endeavor. Although many of our physicians, with the desire to better and safeguard the health conditions in California, used their best efforts in promoting its work, yet there developed a strong feeling in the profession that the duties of the State Medical Association should not be given to an outside organization over whose working machinery it had no control; that the obligations of the state society should at all times be directed and controlled by the governing body of our association; for only in this way could we hope to have a unified guiding influence affecting the evolutionary process in the direction we all desire.

Your Council has recently formed committees, providing an opportunity for those who have the desire to improve and extend the influence of their profession, to assist in liquidating what the state association considers to be its own obligations. How can we render assistance? First and foremost, through the daily contact with our patients. "A slow trickle of publicity directed through the channels reaching women and thus children, will," says Jennings, "prove the most effective method of publicity." For there is some danger of losing much of the valuable old-time direct contact with our patients, seeing that social conditions have changed rapidly. The auto, the aeroplane, the radio, electricity, jazz, and a thousand-and-one things have speeded up the minutes and hours of our working day; the very atmosphere is charged with emotionalism, and we, too, become agitated and hurry our patients along, delegating many of our duties to assistants, secretaries, and laboratory technicians. Consequently that fine art in medicine, the direct and sympathetic touch, the broad and comprehensive view of the humanities, instilling confidence into the mind of the patient, is in danger of being replaced, to our disadvantage, by a materialistic, ultrascientific, cold, mechanical, standardized method of dealing with the sick. This we should endeavor to avoid, because

"A trustful public, the profession's pride,
When once destroyed, can never be supplied."

I am not one who believes that we have already lost the confidence of the public. On the surface, at times, it may seem so, but when serious illness overtakes a family, when a great calamity occurs, when war and disease and pestilence stalk through the land, it is to the educated, ethical doctor that

the people look for help. And there will be demand for such physicians until modern civilization reaches a plane far above our present comprehension.

The second method of giving assistance is through efforts in the county society. The obligations of the county unit increase from year to year; their liquidation is left to a few of the workers. These men are often referred to by the inactive members as "the inner ring," "office seekers," "political doctors." Such charges are unjust. "Every man owes a duty to his profession," says Bacon, and except in a few rare instances these men are simply those who have recognized their duty. They consider "political," when applied to doctor as an opprobrious epithet. Politics can be good or bad, worthy or base. It depends on the motives and actions of the individual. Every doctor is a citizen as well as a physician; each has civic duties he should perform. There is no doubt that we as a profession have been negligent in many phases of our civic duties, the performance of which would be in perfect accord with the ideals and desires of organized medicine and a powerful influence for progress in its evolution. The obligations of the county society should be organized, and be under the direction of active working committees. The legislative committee should take an active interest in all civic affairs related to medicine, many of which are now conducted and directed by lay organizations or some form of cultism. The committee on publicity should arrange a program that would furnish reliable scientific medical information to the public. Articles in the press or scattered broadcast over the radio should have the endorsement, and be given out under the name, of the local county society or other branch of organized medicine. Each county unit should endeavor so to influence the owners of broadcasting stations that all radio messages dealing with health affairs, before being given out, will have the approval of a committee representing scientific medicine. Invoices show a vast and valuable amount of information in the possession of organized medicine that has never reached the public. The committee on graduate extension work should arrange lectures, demonstrations, and clinics for the profession, especially in the outlying districts; for the public should be protected against incompetency among ourselves.

An effort should be made to have laymen, social welfare workers, and public officers in general represented and given an active part in the work of many of our committees. The expert auditor examining the balance sheet of the first quarter of the present century will be forced to the conclusion that organized medicine has made greater progress, and has contributed more to the advancement of civilization than all other agencies combined. After all, the best answer to all criticism, the best test of all work, is found in results. In the first twenty-five years of the present century the span of life has been increased from forty-eight to fifty-five years, and this has been brought about by the tireless research work of the medical profession in the prevention and treatment of disease. What we need to make even greater progress in the next quarter century is an enlightened and cooperating public. Information for

the prevention, control, and even obliteration of many diseases is now in our possession. Malaria takes an annual toll of two million lives; diphtheria and smallpox also take a heavy toll. California, in the number of smallpox cases, ranks as one of the highest sections in the world—a sad reflection on the position which many of its citizens take on public health problems. The application of known medical science could wipe both these death lists completely off the slate. Cancer, in the United States alone, takes a yearly toll of 100,000 lives. Thirty-five per cent of these could be saved by education and better cooperation with our profession. But education lags far behind scientific knowledge: "the light shineth in the darkness and the darkness comprehendeth it not." If we are to judge by what has happened in the past, it will take a full century for the world in general to accept the scientific truths that have already been proved beyond all reasonable doubt. Even in some of our best educational institutions there is an undercurrent of opposition to the acceptance of proved scientific facts, the product of years of research and experience.

Furthermore, where we find the fullest measure of the franchise we often find the greatest activity in dangerous legislation, tending to deprive the sick of the protection of a properly qualified medical service and obstructing the application of scientific knowledge in the prevention of disease.

Credulity, born of ignorance, flourishes in many parts of our state like the proverbial green bay tree. The statements of quacks, of charlatans, and of the ever increasing variety of cults, are accepted without serious investigation and little or no thought. Man is averse to thinking unless compelled by necessity to do so. Few stop to consider Descartes' dictum: "I think, therefore I am."

"Though man a thinking being is defined,
Few use the grand prerogative of mind.
How few think justly of the thinking few!
How many never think, who think they do!"

Someone has said that each profession has its point of honor; that the Alpine guide will never desert the traveler entrusted to his care; that the sailor's point of honor is, first, the safety of the passengers, then that of ship, and last of all his own. The point of honor of the physician is not only the safety and welfare of his patient, but of the general health conditions of his community. Every physician should be a public health officer and take an active interest in all public health work.

Quite recently many medical men throughout the nation were shocked to read a statement credited by the Associated Press to a high official of the American Medical Association to the effect that "more than ninety-nine out of one hundred prescriptions written for a pint of whisky are bootlegging prescriptions and are a disgrace to the great medical profession."

"Who shall decide when doctors disagree?" Alcoholic liquors have been used in the treatment of the sick and afflicted from time immemorial. While there are many physicians who conscientiously believe that alcoholic stimulants are good medicines in certain types of ailments, there are many who think these remedies of no benefit. Are the former to be classed as bootleggers, men who have lost their

point of honor, simply because they disagree with the latter? They join in deploring the fact that some of their number violate the law by prescribing whisky as a beverage. Yet to charge that more than 99 per cent of whisky prescriptions are of a bootlegging nature is unwarranted, and does the profession a great injustice. It is in keeping with the prevalent rash and emotional statements issuing from the rabid opponents of vaccination, and tends to destroy public faith and confidence in the integrity of an honored profession.

There is a tendency, too, among some of our men, to give marked prominence to occasional weaknesses in our calling, weaknesses which it is the part of wisdom to recognize and endeavor to correct; but the constant open confession of our sins furnishes food for enemies blind to our virtues. These enemies, in magnifying our defects, do us much injury in public estimation.

The officials of organized medicine should weigh carefully all statements given to the press, so that occasional sins of commission, occasional unethical conduct by some of our members, cannot be misconstrued, giving the impression that such acts are the rule, rather than the exception. The profession as a whole has never lost its sense of honor. The pages of history are full of instances not only of good citizenship on the part of our profession but also of self-sacrifice and devotion to the cause of humanity; and we are proud of so valuable an asset.

But we must not rest on our past laurels. These are rapidly changing times and we must be forever adapting ourselves and methods to new conditions. Medicine must have the forward rather than the backward look. Let the giant telescope search the skies for their secrets; let the chemist and the physicist reveal new and startling combinations of matter, we will keep our forces marshalled ever ready to advance.

"Not in vain the distance beckons. Forward, forward let us range,
Let the great world spin forever, down the ringing grooves of change."

It is not in the nature of our profession to regard this as

"A time to sicken and to swoon,
When Science reaches forth her arms
To feel from world to world, and charms
Her secret from the latest moon!"

The great pulsating body of organized medicine in its process of evolution will ever register altruistic in its desires and be humanitarian in its efforts. It will stand ready to examine every invention, every discovery, every social movement, and study all newly discovered facts or phenomena, be they of either material or psychical nature, and take the good in each and apply the same to the relief of suffering, the prevention of disease, and the uplift and betterment of mankind. We look toward the future with a feeling of optimism that the best is yet to come. I firmly believe that the destiny of organized medicine will be a "unity bred of diversity," a unity in which all organizations that have both the knowledge and the inclination to better the health conditions of mankind, will participate; a unity of desire and effort that will insure the development of a richer and higher civilization.

MEDICAL PROBLEMS—OLD AND NEW *

By PERCY T. PHILLIPS, M. D.

"NONE but a physician knows a physician's cares."

The medical profession has had its problems since its beginning. Medical practice is divided into three parts—medical economics, medical science, and medical art. A medical association deals with the first two; the third is purely individual. I should like to discuss some of the economic problems of the medical profession which ordinarily receive less consideration than their importance justifies.

If experience is the best teacher, we may speak concerning those subjects that our experience has taught us. Having spent the first thirty years of my professional life as a general practitioner of medicine and surgery and fifteen years as a member of Boards of Medical Examiners, I shall devote a goodly portion of this talk to the discussion of those things that have come within my experience.

To fight the battles of life successfully it is necessary for even the most skilled physician to possess a liberal knowledge of all the adjuncts of his profession. We are busy with the scientific and neglect the practical side, thus failing to apply those general principles which add to our efficiency, happiness and success in our chosen field of combating disease and relieving suffering. We neglect to keep informed of laws governing us and the current events that influence our profession, politically and economically. Thus we evade the responsibility of helping to maintain the standards we must uphold and the honor we would seek to merit. In any profession or trade its members should keep informed on every phase of its activities not only for their own comfort and protection but also that they may instruct the general public. Very often, with the proper information, one may explain the policy of the profession and so forestall unjust criticism.

Some of our problems are as old as medicine and are not yet solved. There are new ones confronting us each year. When a body of people engaged in the same occupation, with the same ideals and ambitions, is interested in progress, organization is not only an advantage but a necessity. There are 7454 licensed physicians and surgeons in California, of which number only 4271 are members of the California Medical Association, the others thereby losing the advantage of the information, inspiration and cooperation they would receive, as well as neglecting a duty they owe the public and to their profession. In order to be 100 per cent efficient, all must be members and have a part in its deliberations.

Are there any means we may employ whereby we may enlist those who are not members in our county and state societies? Are we who are members interested in promoting these organizations lacking in our wisdom and conduct? Are we not making them worth while? "They are not worth while" is a phrase we hear too often. The county society is the foundation and naturally the one to most interest the doctors. There are those in each county who sincerely endeavor to keep up interest. Can

we, as a state association, help them to make their local unit not only a means of instruction but also a pleasure for its members and a useful, and militant organization in its community?

At present the scientific need is provided for. A goodly number of those specially trained in certain departments of medicine and surgery, largely teachers in our medical colleges, offer their time, as well as their talents, in attending and addressing county societies. We who attend and listen can vouch for the pleasure and instruction derived. Their work is not without its compensation to them, for it gives them an opportunity often to get out into the "wide open spaces" where a doctor is *the* doctor, and observe how he effects many successful cures without the aid of elaborate hospitals, laboratories, interns, and other accessories. They welcome the chance to visit the rural "clinic" where the unsung country doctor performs miracles by a development of the natural faculties God gave him and which necessity has compelled him to rely on.

In the organization scheme of state associations it is contemplated that the councilors shall visit each of the county societies in their district at stated intervals for the purpose of discussing and directing economic as well as scientific problems. This is not sufficient. Many of our councilors do devote all the time they possibly can to this work, but it is demanding too much to expect a busy practitioner to cover this important field. To me it seems a state association could profitably employ a full-time individual—call him what you may—perhaps assistant secretary—to answer the call of the county societies, to visit and inform the members on all matters that will decrease their worries. A part of his duty should be to promote membership. The expense of this work will largely take care of itself in increased membership dues.

There is not a fraternal or business association of any character whose activities are similar to ours whose interests are not promoted in this manner.

The problem of the small county society located at a distance from medical centers is difficult, and I feel that as a state association we have not given their problems the thought and attention we should.

Each society has its individual problems, local in character, its jealousies and misunderstandings. These can best be reconciled by one disinterested, one from without.

The publication of more papers read at county society meetings in CALIFORNIA AND WESTERN MEDICINE would certainly be an added inspiration. More papers written from the experiences of the general practitioner would not detract from the journal, but would be an added interest to country doctors whose remoteness from medical centers make them most dependent on medical literature.

The non-medical public recognizes that membership in a county and state association means good standing among one's professional brethren and that lack of membership denotes either ineligibility or carelessness to the best interests of a profession in which the majority of people are interested, on which they depend for the protection of health, their most valuable possession. Above the credit due those physicians who support their society stands the right

* Inaugural address as president-elect California Medical Association, delivered at Los Angeles, April 25, 1927.

of a community to know who are the consistent promoters of its welfare. There is no breach of medical ethics in any county society publishing as a paid advertisement a list of its members. No matter how much help and encouragement is given from without, the local physicians must still continue their efforts to encourage membership and interest. In your association with your confrères do unto others as you would have them do unto you. This comprises all of ethics. Of course, we have certain established procedures peculiar to our profession which from experience have been found to more nearly apply the Golden Rule in our relations with each other and our patients.

Give credit so far as you can for the efforts of any physician. Do not criticize or even thoughtlessly discuss another's work, for you do not know the circumstances under which it was performed. Let us not be guilty of loose talk in this regard.

A discussion of the problems of the medical profession would not be complete without a consideration of the activities of the Board of Medical Examiners and the Board of Health, the two State Commissions, whose functions are entirely related to the practice of medicine.

The Board of Health is concerned in creating and enforcing such laws and regulations as the best interests of the public health require. The Board of Medical Examiners is concerned in supplying suitable persons, trained in medicine and surgery, to carry on the fight against sickness and to see that none continue in the work who are unreliable. Some of their problems will be of interest, because in our profession, as in everyday life, we are apt to be so busy with our own affairs that we pay little attention to those agencies that control us except to scold when we run up against some wise provision that interferes with our idea of "personal liberty," a phrase that is overworked.

That the State Board of Health has its trials and tribulations goes without saying. A body that has to make and enforce rules for a commonwealth of such varied opinions concerning the proper methods of preventing disease and conserving health surely has to be not only wise but diplomatic.

Popular interest in preventive medicine is growing as evidenced by the publicity given its achievements in the newspapers and magazines. This proves that not only the physicians but the general public as well appreciate all efforts along this line, and there is more cooperation by the public each year. The Surgeon-General has said "the purpose of all health work is the application of human knowledge in the care and restoration of the sick and the prevention of disease."

While the care and restoration of the sick is entirely the duty of the practicing physician, yet he should render every assistance to the Health Officer in his special duty in preventing disease.

There is no way we can be of greater assistance than in helping educate the public in health matters. Dante said: "Give light and the people will find their own way."

My years of service on Boards of Medical Examiners bespeak a knowledge of the importance of a progressive, active, functioning body, empowered

to administer the diversified work contemplated in a comprehensive medical act. Perhaps more than to the majority of the members of this society comes to me the full realization of the value of our Medical Act, with its capabilities:

In maintaining a high standard of qualification exacted of those who seek approval of this state to treat, diagnose and prescribe for the ailments of her citizens.

In keeping an effective check on those who aspire to mulct the public by operating "mushroom" schools of the healing art.

In disciplining those few individuals found in every profession who seek to sell their souls for a mess of pottage; and in punishing those violators, who, devoid of qualifications, but blessed with an oversupply of arrogant assurance, pray upon the mentally or physically sick.

That our Medical Act, developed after many conferences among learned leaders, is well grounded has been proved in many a legal contest waged by some of California's most able criminal lawyers. The long list of important decisions ranging from the United States Supreme Court to the California Supreme Court offers irrefutable evidence that California would be unwise to countenance any attempt to undermine her Medical Act.

Annual registration is a most valuable provision in our act. Only in this way can we keep track of our licentiates. California was one of the earliest states to pass this legislation, and the majority of states are following our lead. Pennsylvania, New York, Connecticut, Iowa, and Oregon are some of the states that have recently strengthened their statutes by requiring annual registration.

Enforcement presents one of the most serious problems in the administrative feature of the Medical Act. But few members of our Association comprehend the exacting legal demands that make so difficult our attempts at enforcement.

When John Doe writes a letter recounting that Richard Roe is engaged in some alleged violation of the law, he usually feels offended if we do not immediately cause the arrest of the suspected individual, giving no thought to what kind of evidence must be obtained and how careful our investigators must be lest by some false move they involve the board in embarrassing difficulties and perhaps litigation. Without the cooperation of the individual treated, it is practically impossible to carry on a successful prosecution. Court delays, that consoling recourse for those charged with violation of the law, also present obstacles to carrying a prosecution to a finish. Delays are of inestimable value to the attorney for the defense. The court etiquette of the legal profession in some instances is wonderful. On request, the trial of a case is put over, and again put over and again continued, with what result? The case is lost on the calendar or disappearance of witnesses during the interim of months of delay makes dismissal necessary. Sometimes after a delay of perchance two years the case comes to trial.

Hearings of those licentiates called before the Board of Medical Examiners for various violations consume the greater part of each regular meeting.

A sworn complaint is first filed with the secretary, who thereon issues a citation calling the accused before the board at the next regular meeting. The citation and complaint are thereupon served on

the respondent with whom is left a copy of each of said documents. Respondent must answer within twenty days after service on him. The respondent, with or without his attorney, then appears at the time and place specified, a formal hearing is had before the board, and the entire proceedings are taken by an official court reporter. After the evidence has been submitted, the board goes into executive session for deliberation, then in open session with the respondent and his attorney present, the board makes its findings, and if the respondent is found guilty the penalty is imposed. Thereafter, in the case of a suspension or revocation, the secretary forwards an official notice to the clerk of the county wherein the respondent may be registered.

In the majority of cases where the certificate of a licentiate has been revoked, a writ of review is sought in the hope that the findings of the board may be set aside along with the judgment based on such findings.

After filing this action, our "revokee" usually continues his practice perchance for two, three, or four years. This he does notwithstanding the fact that the judgment against him revoking his license is a self-executed judgment defining his status as of the time of judgment. The crowded condition of the Superior Court calendars in this state frequently delays the final disposition of such a case for an unbelievable period of time. But comes the day when the Superior Court renders its decision; then follows an appeal to the next higher tribunal, again marked by a long interval of watchful waiting, partially due to the crowded condition of the court calendars, but more often due to the "fencing" of opposing attorneys in the filing of briefs. But hold, the end is not yet. There still remains appeal to the Supreme Court, usually the end of the trail.

One whose license was revoked in 1923, still continues his practice. Three "revokees," penalized by the board in 1924, still practice under the protecting mantle of delayed court procedure. Numerous are the inquiries why these "revokees" are permitted to practice, for it is difficult for the average individual to understand why the lower courts do not function when such individuals are brought to bar on a charge of practicing without a license.

This is true notwithstanding, as I have said, that the judgment of the board against the "revokee" is a self-executed judgment which immediately and effectively defines the status of the individual.

When the agents of the board have repeatedly sought to bring to justice those "revokees" who were practicing pending their appeal, such agents have met with but little success in the police or justice courts which, either from a misunderstanding of the law or other reasons, failed or refused to take jurisdiction of the offense charged.

Our experience with these court delays is but a reflection of the experience of everyone. A commission was appointed at the 1925 legislature to consider court procedure and to make recommendations thereon, and that commission has filed its report. All live in the hopes that the deliberations of the 1927 legislature will result in a more prompt and efficient administration of our laws. Some relief has already been obtained through the functioning

of the recently perfected so-called judicial council, initiated by the 1925 legislature and ratified by the people of this state in 1926.

The midwife, always found in centers of foreign population, must be countenanced. Regulation of her operation is provided under the Medical Act, and further supervision is provided by the Boards of Health. A campaign of education is our only recourse to assure competency. The state board requirements are adequate and should be augmented by compulsory lecture courses held at least once a month by local health departments. The social welfare worker can be made invaluable in educating expectant mothers to place themselves under the care of competent physicians or, failing in this, see that competent midwife service is furnished. We believe the midwife situation in California is well in hand.

Over 60 per cent of the hearings in 1926 were based on narcotic indiscretions and the reciprocity licentiates featured largely, making it strongly presumptive that in the state from which they came narcotic enforcement was not so efficient as in California.

The members of the medical profession are urged to read more studiously the instructions regarding narcotic regulations, published in each issue of the directory of the Board of Medical Examiners. When in doubt regarding procedure, immediately communicate with the State Board of Pharmacy, whose cordial cooperation is yours for the asking. Be not too credulous when an addict comes to your office urging that you supply him with a few tablets of narcotics until he can travel to a neighboring town, or tells you that oft-repeated tale that he comes to you for cure, discusses the details thereof and, after agreeing to enter an institution "tomorrow," asks for a small supply of morphin to tide him over. Their tales are plausible, but at the risk of being hard-hearted, the wisest course is to turn a deaf ear to their siren song, advising them to go to the city or county hospital for their treatment.

Recent legislation prohibits the ambulatory treatment of narcotic addicts. All must now be hospitalized. No longer will the ambulatory addict peddler be permitted to go from doctor to doctor and under the guise of treatment secure a narcotic supply to peddle to others afflicted with this cursed addiction.

Medical education has passed through kaleidoscopic changes in the past few years. Standards seem to change each year. The high school preliminary education and four-year medical course was succeeded by a one-year premedical requirement, then two. Thereafter the one year was added for the completion of an internship. Now the medical course demands that the embryo physician devote so many years to the completion of his course that the pendulum is swinging back. The attention of our educators is being devoted to shortening the period of preparation, that the physician may younger enter his hospital apprenticeship, so essential to mould the experienced practitioner.

Undoubtedly no subject in medical economics is receiving more attention than medical education, and examining boards are greatly interested in its various phases. It is indeed a problem to decide how much or how little should be required; how

much of an individual's life can consistently be demanded in preparation for the practice of medicine and surgery.

I believe the time occupied in premedical study may be materially decreased without detriment, but the one year's internship should be positively required before graduation by all medical teaching institutions. The year's internship, as now conducted, does not furnish an experience sufficiently varied and complete to satisfactorily fit the graduate for general practice. Only a small percentage of the sick are treated in hospitals, and those that are so treated are seriously sick. Therefore the intern does not come sufficiently in contact with the minor ailments and ambulatory cases that will constitute the bulk of his practice at the start. These are the first cases the young practitioner will be called on to treat, and the impression he makes in caring for them is certain to have a lasting effect on his future usefulness in the community. His exhaustive, well-written history of the patient who is dead of pernicious anemia is not nearly so important to this embryo physician as the hearty "Good morning, Doctor," of the patient who suffered a bilious attack from overeating and being promptly relieved, is busy telling all his friends what a wonderful person the young doctor is.

The young practitioner of today is missing the valuable experience formerly obtained from a preceptor. The preceptor has been discarded. He should not have been till the time when all the sick are hospitalized. Is there not some way now whereby the young doctor about to enter practice can be taught the simple homely duties of a physician, or must he go on learning them by sad experience after he has consumed eight years of his life in procuring a degree, only to find he has been taught not too much science and art, but too little common sense with which to apply them?

I believe all faculties should include a goodly number of men who are not full-time professors, but are actively occupied with all the problems of general practice, outside the clinics and hospitals. The college faculties should not forget the importance of the simple things in life nor the value of an understanding of human nature. Only men who have met and intelligently solved the problem of general practice in the home are qualified to give the instruction that will reveal to the student that, contrary to his preconceived idea of the need of hospitals, a large percentage of cases can comfortably and successfully be treated at home.

Just a thought about drug therapeutics. Since scientific advancement has opened the way to so many other valuable methods of treating disease it is perfectly natural that the use of drugs, while not fallen into disrepute, should be lessened. However, as a profession we are not drug nihilists. We recognize as always their value.

The experience of examining boards is that medical colleges are lessening instruction in drug therapeutics out of proportion to their lessened use. The grades obtained in this subject are not so satisfactory as in others, yet drugs still constitute a large part of the treatment of disease. One of the reasons undoubtedly why the younger practitioners are

using the "ready to wear" drug combinations of the manufacturers is because they are not instructed in the physiological action of a sufficient number of remedies to prescribe them with confidence. They accept too readily the statement that this combination possesses among other actions one that applies to the condition present.

The board does not make the law. It only stabilizes it. Drug therapeutics is a subject of examination. More thorough instruction should be given or it is unfair to the recent graduate coming up for examination. His want of exact knowledge in this subject may affect his general average even to the extent of failure to procure his license.

That some members of our profession devote their time and effort to special features of its work is a necessity. Even in the time of Hippocrates, physicians were given to specializing. With the advancement of medical science and its corresponding increase in the amount of knowledge obtainable, more than ever is it realized that one cannot acquire anything like the full extent of proficiency in all its diversified subjects, hence there must be specialists.

While the specialist has been defined as "one who knows more and more and more of less and less and less," they are the ones on whom we must rely when the patient is desperate, but they are not entitled to more credit than is the family doctor who bears the brunt of the battle. Their helpful skill is recognized by the public, but if their value is considered greater than the family doctor's by the public it is the fault of our profession.

There are too many self-appointed specialists. The solution of this problem lies not only in the influence of the teaching institutions, but also in the change in the laws governing practice.

An adequate liberal medical education should first be furnished to all. Should the individual then aspire to a specialty, additional training should be exacted. Evidence of this additional training and a sufficient examination should be required before a certificate to practice such a specialty as a specialty is granted by the state board. The necessity of this appeals to me after assisting in the examination of hundreds of so-called specialists.

It is interesting to hear from the dean of one of our larger universities that during the ten years, from 1913 to 1923, the number of graduates who went directly into specialties from each class ranged from 50 to 75 per cent. This, in limiting the number of general practitioners, necessarily limits the supply of family doctors.

The following, taken from lines received by a doctor while sick in a hospital, expresses concisely the family needs regarding medical attention:

"When we need you
We need you bad,
Whether its mother, the kiddies or dad.
So hurry, Doctor, hurry; get well fast,
Mother's going to need you, February last."

It seems to be a fact that we are not supplying the demand for persons trained in general medicine and surgery, willing to undertake the more arduous duties of the general practitioners.

"Over rough roads, indeed, lies the way to medical glory," but we must admit the family doctor

gets more than his share of the unpaved streets. In order to best serve the sick and afflicted there must be those who are willing to serve as family physicians; who are capable of diagnosing and treating the ordinary ills and who are also able to evaluate conditions so they may call to their aid when needed men specially trained in certain lines. No one in our profession or any other is esteemed and loved as is the family medical adviser. While the work is harder, there is no reason why the rewards for a life so spent should be less. Such a life's work more nearly conforms to our ideals and traditions.

In conclusion, I believe in periodic health examinations. I believe in periodic health examinations for this association of California physicians and surgeons.

Such an examination at this time reveals a very normal condition. The exceptions being: (1) Somewhat underweight as to membership. (2) Heart action not sufficiently strong to assure the proper scientific and economic nourishment necessary to the growth and development of that part of its system represented by the smaller county medical societies.

If there is anything I am interested in more than another, it is the improvement of these two conditions during the coming year.

If, as in this past twelve months, the toll of years deprives this body of members it can ill spare, then nature's law of compensation demands that we lesser members undertake added burdens and thus "carry on" in the place of those whose strength we have lost.

It is well known among medical men and others who have knowledge of the financial affairs of hospitals, that hospitals as institutions are not profitable investments. The income from pay patients is not enough to take care of the overhead expenses. The burden of the upkeep therefore falls upon the owners, whether physicians, surgeons, religious or fraternal organizations.

The community benefited should bear this burden.

We have school districts, drainage districts, irrigation districts—why not have community hospital districts?

We spent vast sums of money in every community of any importance to build showy public buildings—high schools, city halls, court houses—much of it to indulge civic pride, and we overlook that which should concern us above all else—the community and individual health.

Iowa some years ago enacted a law providing for county hospitals in counties voting favorably for the projects. Theoretically this would seem to be a happy solution of the hospitalization problem; but not over a dozen counties have availed themselves of this act in the more than a dozen—perhaps twenty—years since the enactment of the law. This in itself shows that the county hospital law does not meet the needs of the community.

A law should be enacted in this and other states, providing for the formation of community hospital districts, and the building and maintenance of hospitals, in manner similar to the laws for the formation of school districts, drainage districts and irrigation districts, and for necessary construction and maintenance.

The hospitals could rank from about 25-bed emergency hospitals on up to whatever the community needs may be.

More and more the need of community hospitals is becoming apparent. The laity expects better results than are in many cases possible in household practice, and is willing to avail itself more and more of the hospital. Obstetrics and other emergency practice alone would justify the community hospital.

Would that a Daniel Webster or a William Jennings Bryan were to appear to arouse the populace to this greatest of all social needs—the community district hospital!—*Nebraska M. J.*

CONGENITAL CLEFT LIP AND PALATE

By JOHN HOMER WOOLSEY *

(From the Department of Surgery, University of California Medical School)

DISCUSSION by Stanley Stillman, San Francisco; Wallace I. Terry, San Francisco; Mrs. Mabel F. Gifford, San Francisco.

THE object of this paper is to review the more recent developments in knowledge of congenital cleft lip and palate particularly as they relate to the proper time and the proper type of treatment in this unfortunate and not uncommon affliction.

It has been estimated from observation in public institutions that the incidence¹ of this condition is one in every 1170 births. In the United States, therefore, we have approximately 2000 such congenital deformities annually. Yet, despite the high incidence of this condition, and therefore the opportunity to determine proper treatment, there has been in the past a wide difference of opinion concerning the time for and the plan of treatment. This, in turn, has served to confuse many physicians, and as a result, good, bad, indifferent and destructive advice is given to the already heartaching and bewildered parents.

In July, 1914, at the meeting of the Clinical Congress of Surgeons of North America, in London, a symposium of an international character on cleft palate surgery was held, and from that date a greater endeavor has been made to come to some unanimity of opinion.

A classification has been one of the first evolutions. Californians may take pride in the fact that a former and greatly respected and loved member of our association, Harry M. Sherman² of San Francisco, defined the surgical groups according to which cleft lip and palate are now described. Since the condition of the alveolar process influences the course and type of treatment and is the chief structure about which all the surgery is concerned, it serve as the basis for the classification of congenital cleft lip and palate. Alveolar cleft, prealveolar cleft (cleft lip, and formerly designated as "hare-lip"), and post-alveolar cleft as illustrated in Fig. 1

* John Homer Woolsey (907-909 Medico-Dental Building, San Francisco). M. D. University of California, 1915; B. S. University of California, 1912; M. S. University of California, 1914. Previous honors: Alpha Omega Alpha; First Lieutenant and Captain U. S. Medical Corps, October, 1917, to April, 1919, with overseas duty; secretary of San Francisco County Medical Society, 1923-26; secretary of General Surgery Section for 1926, California Medical Association. Present hospital connections: Visiting surgeon University of California Hospital; chief of Surgical Clinic and Out-Patient Department, University of California Hospital. Scientific organizations: San Francisco County Medical Society, California Medical Association, American Medical Association, San Francisco Academy of Medicine, William Watt Kerr Club, College of Surgeons. Present appointments: Assistant Clinical Professor of Surgery, University of California Medical School; Major, U. S. Army Medical Reserve; Commanding Officer of U. S. Army Surgical Hospital No. 65. Practice limited to General Surgery. Publications: "Studies in the Blood Relationship of Animals as Displayed in the Composition of the Serum Proteins," Jour. of Biol. Chem., June, 1913; "Traumatic Fracture of Mandible—Preoperative Preparation; Type of Bone-Graft; Adaptation of Bone-Graft," The Surgical Clinics of North America, Vol. 2, No. 2; "Anthrax Pustule—Diagnosis; Treatment. Value of Anthrax Serum," The Surgical Clinics of North America, Vol. 2, No. 2; "Gastrojejunal and Jejunal Ulcer," The Surgical Clinics of North America, Vol. 1, 1923; "Acute Pancreatitis," California and Western Medicine, September, 1924; "Wound Infections," The Surgical Clinics of North America, June, 1926; "Sterile Paper Towels for Surgical Wound Dressings," J. A. M. A., May, 1926.

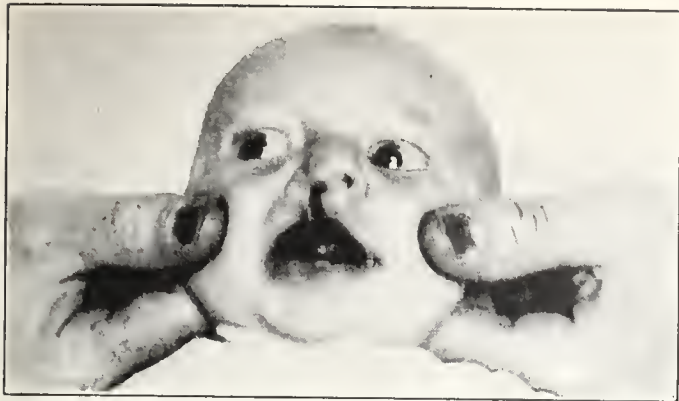


Fig. 3—Method of digital pressure for the first ten days.

first and, as a result, interferes with the length of the soft palate, which is so important in obtaining good resonance. He has not found the interference with the teeth, has had no sloughing of tissue as reported by some, and, as a final result, has good occlusion of the teeth and better speech.

There are two points of a minor nature that demand a word. The premaxilla should never be amputated, as it would be a sacrifice of good tissue and loses the opportunity for perfect symmetry of the alveolar arch. The union between the lateral alveolar processes and the premaxilla must be firm. A bony union is the desire and when properly operated so results.

The procedure of the surgery depends upon the type of cleft, the position of the several parts and the age of the patient. There is no one procedure that fits all instances. From an opportunity to see and operate a relatively large number of cleft lips and palates, the author is convinced that a judicial selection of the methods of treatment for each problem gives the best immediate results. The eventual results, that is ten to twelve years later, from observation of a few patients of other surgeons shows better results in conformation of the alveolar processes by the lip closure method and equally good results by both methods in the occlusion of teeth and the ability of phonation.

The procedure at the University of California surgical clinic is to hospitalize the patient so that the diet, weight gain, and general condition can be properly supervised; pressure mobilization of the maxilla twice daily for three to five minutes from day of birth to the age of 10 to 14 days; then as a rule employment of the wire and plates for proper approximation of the alveolar processes and the replacement of the premaxilla; two weeks later a tightening of the wires and closure of the cleft lip; two weeks later removal of the wire and closure of the hard palate. Then the child is allowed to go home with instructions to return at approximately the age of nine months for closure of the soft palate.

Resonance is one of the most important elements of surgery. Resonance depends upon the length and mobility of the soft palate. If the structure is unable to close the nasopharyngeal recess, good resonance will be impaired or lacking. Artificial plates for blocking the absent space unfilled by the soft palate are now being constructed. Resonance can be greatly helped by speech training, and practice under proper guidance is of tremendous importance. Such guid-

FIG. 4—OPINIONS REGARDING TIME FOR OPERATION AND PROCEDURE

| Surgeon | Preferred age for operation | Prefer lip closure first | Prefer palate closure first |
|---|--|--------------------------|-----------------------------|
| Brophy ³ (Chicago) | "As early after birth as possible. Before the age of 3 months." | 0 | x |
| Berry ⁴ (London) | "In earliest infancy." | x | 0 |
| Brown ⁵ (Milwaukee) | "Earliest possible time." | x | 0 |
| Ritchie ⁶ (St. Paul) | "Earliest possible time." | x | 0 |
| Thompson ⁷ (Galveston) | "At as early an age as possible." | x | 0 |
| Eastman ⁸ (Indianapolis) | "First week after birth." | | |
| Dowd ⁹ (New York) | "Earliest practicable time." | x | 0 |
| Lane ¹⁰ (Edinburgh) | "First few days of life." | 0 | x |
| Sherman ¹¹ (San Francisco) | "Fifteen pounds old." | 0 | x |
| Goyder ¹² (Bradford, England) | "Closure of lip early. Closure of palate aet. 12 months." | x | 0 |
| Blair ¹³ (St. Louis) | "First 6 months. Within first 24 hours is an ideal time." | x | 0 |
| Farr ¹⁴ (Minneapolis) | "Between third and eighth week." | 0 | x |
| New ¹⁵ (Rochester, Minn.) | "Lip aet. 3 to 4 months. Palate 1 to 1½ years." | x | 0 |
| Terry (San Francisco) | "Pressure approximation with birth, and other treatment to immediately follow with successive operations." | 0 | x |
| Horsley ¹⁶ (Richmond, Va.) | "Two weeks old." | x | 0 |

ance is now obtainable in almost every city of our state. Our duty as physicians does not end with the surgery. We must see that these patients personally meet the person trained in speech defect methods.

CONCLUSION

The correction of congenital cleft lip and palate should be begun immediately after birth and continued in graded operations, completing the alveolar cleft, prealveolar cleft and the hard palate preferably by the age of 3 months. The soft palate is best closed at the appropriate age of 9 months and before the age of 18 months.

The patient as a rule should be continued as a hospital patient from the first few days after birth until the hard palate is closed.

The physician's duty does not end with the correction of the physical deformity. He should have the training of the speech carried on for years by someone qualified to correct speech defect.

REFERENCES

1. Davis, J. S.: The Incidence of Congenital Cleft of the Lip and Palate, *Ann. Surg.*, 1924, LXXX, pp. 363-74.
2. Sherman, H. T.: Personal Communication Ritchie, *Archiv. Surg.*, 1921, III, p. 233.
3. Brophy, T. W.: Cleft Lip and Palate, Text, 1923, p. 125.

4. Berry, J.: *Surgery of the Cleft Palate*, Surg., Gynec. and Obst., 1915, XX, pp. 85-87.
5. Brown, G. V. I.: *Principles Which Govern Ultimate Results of Harelip and Cleft Palate Operations*, Surg., Gynec. and Obst., 1915, XX, pp. 87-91.
6. Ritchie, H. P.: *Congenital Cleft of the Lip and Palate*, Archiv. Surg., 1921, III, pp. 230-44.
7. Thompson, J. E.: *Operations for Harelip and Cleft Palate*, Ann. Surg., 1921, LXXIV, pp. 394-425.
8. Eastman, J. R.: *Surgical Anatomy of Cleft Palate*, J. A. M. A. 65, 1915, pp. 915-917.
9. Dowd, C. N.: *The Surgical Treatment of Cleft Palate*, Ann. Surg., 1925, LXXXI, pp. 573-584.
10. Lane, W. Arbutnot: *Cleft Palate and Harelip*, Text, London, 1908.
11. Sherman, H. M.: J. A. M. A., 1917, LXIX, p. 1966.
12. Goyder, F. W.: *On the Treatment of Cleft Palate*, Surg., Gynec. and Obst., 1915, XX, pp. 95-97.
13. Blair, V. P.: *Internat. Clin.*, 1916, III, p. 211.
14. Farr: *Treatment of Congenital Cleft Lip and Palate*, Minn. Med., 1925, VIII, p. 149.
15. New, G. B.: *Minn. Med.*, 1918, I, p. 8.
16. Horsley, J. S.: *Virginia Med. Month.*, 1920, 47, p. 97.

DISCUSSION

STANLEY STILLMAN, M.D. (Stanford Hospital, San Francisco)—Doctor Woolsey's paper is a valuable contribution to the subject of when and how to close labio-alveolar-palatine clefts, concerning which, as he says, there has been, and (which he does not say) there still is a wide divergence of opinion even among surgeons of extensive experience.

Why this is so, is difficult to explain—perhaps because one surgeon rarely has an opportunity to see another's work in this field, as cases are not often held over for demonstration.

In the main, I agree with Woolsey in his contentions, but I am inclined to be a bit more radical both as to when and how—I prefer to operate immediately after birth, and a number of times have done so before the mother has seen the child—as always should be done if possible in simpler labial cleft. I do not think any real good can be accomplished by digital pressure; the tissues are elastic enough, but they are not plastic and, to my mind, the time so spent is wasted.

My own practice and teaching has been to operate at the earliest possible moment, and at that time to close both the alveolar and labial cleft and often to force the maxillae together as far as possible without fracturing them, and retain with a mattress suture of wire and buttons.

In unilateral clefts I have sometimes been obliged to separate the premaxillary bone on the opposite side with a small osteotome before it could be crowded back where it belonged and the alveolar cleft closed. All sutures are removed by the fourth or fifth day and the child restored to its mother by the fifth or sixth day.

I wish to emphasize Woolsey's statement that new-born babies stand shock and anesthesia remarkably well. I always, however, have them enveloped in cotton before any operation. It is in regard to the closure of the palatine cleft that the real divergence of opinion exists as to when and how to operate.

In my own experience after varying success with both early and late operations I have for the past fifteen years preferred to operate at about 2 years of age and to close both hard and soft palate at one operation. However, I cannot say that I am so uniformly successful as to insist that it is the only proper time or procedure. If Doctor Woolsey succeeds in 75 or 80 per cent of his cases without reoperation, I think his recommendations should be preferred to any other methods that I am familiar with.

WALLACE I. TERRY, M.D. (384 Post Street, San Francisco)—In my opinion, emphasis should be laid on the very early treatment of cleft palate, when the tissues are easily mobilized. The obstetrician should advise immediate attention to the condition. Too often, unfortunately, the parents are advised to wait one, two, or three years

before having the cleft closed, and imperfect speech is then much more difficult to correct.

Woolsey's paper is a splendid contribution to the subject of cleft lip and palate.

MRS. MABEL FARRINGTON GIFFORD, A.B. (Director of Speech-Defect Clinic, University of California Medical School and Hospital, San Francisco)—I am particularly interested in Doctor Woolsey's paper because of my long experience in speech re-education after surgery.

After successful operations in cases where there is sufficient tissue in the soft palate to form the normal closure between the nasal and buccal cavities only, are we able to secure comparatively normal speech after months of careful training. This training consists of establishing voluntary control of the soft palate which should rise and fall freely during speech, falling during every sound of m, n, and ng, and rising and stretching to meet the back wall of the pharynx for all the other vowel and consonant sounds. While this closure is not absolutely airtight, as the euphony of speech is dependent upon the slight vibration of air in the nose, any considerable deviation from this palate action brings in its train a lack of proper nasal resonance and an abnormal voice condition, commonly known as nasality.

Furthermore, the consonants p, b, t, d, k, g, are dependent upon the momentary compression of air at the back of the mouth with subsequent quick explosive release. This is impossible if there is a leakage of air into the nasal cavity. The p and b become m, the t and d sound much like n, and the k and g resemble ng. Similarly the f, v, th, s, z, sh, ch, j, and other consonants require the forcing of air over obstructions offered by the tongue and lips. If there is a rush of air into the nose the necessary friction is entirely lost and these consonants are decidedly defective. While training may slightly improve enunciation, normal speech is impossible to obtain.

On the other hand, I have had excellent results in cases of deficient palate tissue where the hard palate only and lip had been closed by the surgeon, and a false soft palate attached to a plate to exactly fit the opening, supplied by a specialist. The best results were obtained where the false soft palate was attached to the plate by a hinge. The muscles of the cleft soft palate soon closed around this attachment and manipulated it to form the proper closures, and normal resonance and speech was the result.

Therefore, from the speech specialist's point of view, I should recommend that the soft palate should not be closed unless there is an abundance of tissue.

Also, as Doctor Woolsey points out, the child should have the training of speech carried on by one who understands the physiology of the speech organs, the action of the muscles of the articulatory mechanism for the consonants and vowels, as well as voice and resonance training. Since speech is acquired during the first six years of the child's life, this training should begin before false habits have been established and before he has been made to feel different from the other children. If allowed to go without this training the child becomes self-conscious and sensitive, often developing the feeling of inferiority.

Furthermore the risk incurred in delaying treatment during the early years is that in some temperaments it may cause the character to develop along negative lines. Instead of growing into the extrovert type—the "doer," with poise and confidence in himself—the child tends to remain in the introvert stage of development, that non-initiative condition with its lack of self-expression and self-confidence, its aloof and detached manner and its avoidance of responsibility, which if allowed to dominate character incapacitates the individual for the battle of life in this our modern civilization. Speech, "the intermediary between man and his environment," must be fluent and under the speaker's control, otherwise self-confidence is lost and self-expression impossible.

Our immunity we must retain; if we drive out disease we must lock the door. A decreasing morbidity without immunity will surely mean an increasing mortality.—*Endocrine Survey.*

THE FOURTH YEAR MEDICAL STUDENT
AND HIS LIFE WORK
A COMPARATIVE STUDY OF TWENTY YEARS
AGO, AND TODAY

By JOHN B. MANNING, M. D.

TWENTY years ago I addressed a questionnaire as secretary of my class to the fourth-year students of one of our foremost medical schools. Among other things asked in the questionnaire was what most interested these fourth-year medical stu-

dents in the practice of medicine. I thought it might be of interest to physicians in general, and of especial interest to those more intimately associated with the arrangement of the studies of the fourth-year student to peruse the following table. It may contain nothing new, but I don't recall ever having seen a similar publication. These men were all college graduates with an average age of 26 years when the questionnaire was sent out. Mature men apparently as capable of deciding what their future work would be as any similar group. Some may be

| Fourth Year Medical No. | Reply to Questionnaire by Fourth-Year Student (Reply twenty years ago) | Branch of Medicine Ultimately Undertaken as Life Work | Remarks |
|-------------------------|--|--|---|
| I | General medicine | | Deceased |
| II | General surgery | Surgery | Practice limited to surgery S* |
| III | Pediatrics | Pediatrics | Pediatrics |
| IV | General medicine and surgery | | Life insurance examiner |
| V | Surgery | Surgery | Practice limited to surgery S* |
| VI | Surgery | Surgery | Practice limited to surgery S* |
| VII | Surgery | Medicine | Practice limited to internal medicine I* |
| VIII | Clinical medicine | Pediatrics | Practice limited to pediatrics Pd* |
| IX | Pediatrics and dermatology | | General medicine |
| X | Omitted this feature in questionnaire | Pediatrics | This man was an intern on graduation in a children's hospital following two years of general hospital work, and so evidently his interests lay in this field as a student. Practice limited to pediatrics Pd* |
| XI | General medicine | Probably in public health | Captain U. S. A. Medical Corp. Was stationed in the Canal Zone |
| XII | Obstetrics and pediatrics | Public health, Child Welfare Division | Head of Child Welfare Division of an extremely well-organized State Commission of Health |
| XIII | Clinical medicine | Internal medicine | Practice limited to internal medicine I* |
| XIV | General medicine | Surgery | Limited to surgery S* |
| XV | Orthopedic surgery | Assistant to nationally known orthopedic surgeon for three years | Now life insurance exclusively |
| XVI | Omitted to state this feature of questionnaire | Surgery | Practice limited to surgery S* |
| XVII | General medicine | | Lieutenant-Commander in U. S. N. doing general medicine, personal communication |
| XVIII | Surgery | Ophthalmology Otology Laryngology Rhinology | O. A. L. R. |
| XIX | Surgery | Genitourinary surgery | Limited to urology, surgery U* |
| XX | General medicine | General medicine | |
| XXI | Mechanical therapeutics | Orthopedic surgery | Limited to orthopedic surgery until recent severe illness obliged him to discontinue all work Or* |

| Fourth Year Medical No. | Reply to Questionnaire by Fourth-Year Student (Reply twenty years ago) | Branch of Medicine Ultimately Undertaken as Life Work | Remarks |
|-------------------------|--|---|--|
| XXII | Surgery | General medicine | Now specializing in life insurance |
| XXIII | Clinical medicine | Internal medicine | I* |
| XXIV | Surgery and pediatrics | General practice | Especially interested in physiotherapy |
| XXV | General medicine and nervous and mental diseases | Retired | |
| XXVI | Surgery and obstetrics | | Major in U. S. A. Specializing in eye, ear, nose, and throat department of large Army hospital |
| XXVII | Surgery and obstetrics | Diseases of women, obstetrics, and some children's work | |
| XXVIII | Omitted to fill in this part of questionnaire | Ophthalmology | Limited to ophthalmology |
| XXIX | Laryngology and rhinology | Limited to life insurance work | |
| XXX | Surgery | Surgery | |
| XXXI | Medicine | Clinical pathology | C. P.* |
| XXXII | Medicine | Otology Laryngology Rhinology | Now limiting work to life insurance work |
| XXXIII | Surgery | General practice and surgery | |
| XXXIV | Medicine | Internal medicine | I* |
| XXXV | Surgery | Surgery | S* |
| XXXVI | Clinical medicine | Pediatrics | Pd* |
| XXXVII | | Was in Army | Schrapnel wound during war. Was in regular U. S. A. service. Retired because of wounds received in action. |
| XXXVIII | Internal medicine and pediatrics | Pediatrics | Pd* |
| XXXIX | Surgery | Surgery, obstetrics | |
| XL | Surgery | Surgery | S* |
| XLI | Surgery | Surgery | S* |
| XLII | Surgery | Surgery | S* |
| XLIII | Pediatrics | | Not listed in American Medical Association Directory |
| XLIV | Orthopedic surgery | Orthopedic surgery | Or* |
| XLV | | Tuberculosis | |
| XLVI | Surgery | Surgery | S* |
| XLVII | Surgery | | Major U. S. A. Medical School, Washington, D. C. Interested in surgery. |
| XLVIII | General medicine | General medicine | |
| XLIX | Surgery | Surgery | S* |
| L | Internal medicine and pediatrics | General medicine | |
| LI | Surgery | Surgery | S* |
| LII | Surgery and pediatrics | Surgery | S* |
| LIII | Pediatrics | Internal medicine | I* |

| Fourth Year Medical No. | Reply to Questionnaire by Fourth-Year Student (Reply twenty years ago) | Branch of Medicine Ultimately Undertaken as Life Work | Remarks |
|-------------------------|--|---|--|
| LIV | Neurology | Neurology and psychiatry | NP* |
| LV | General medicine | Neurology and psychiatry | |
| LVI | General medicine | | Director of Public Health Laboratory Service of International Health Board |
| LVII | Laryngology | | Deceased, 1912 |
| LVIII | Surgery | Surgery | S* |
| LVIX | General medicine | General medicine | |
| LX | Neurology | Neurology and psychiatry | NP* |
| LXI | General medicine, obstetrics, and pediatrics | Pediatrics | Pd* |
| LXII | General medicine | | Deceased |
| LXIII | | | General work |
| LXIV | Clinical medicine | | Doing general medicine, but interested in pediatrics |
| LXV | Dermatology and pediatrics | | Deceased |
| LXVI | General medicine and pediatrics | | OR* |
| LXVII | General medicine | | General medicine |
| LXVIII | Pediatrics | Pediatrics | Pd* |

considered as distinguished and to have achieved success in their chosen work far beyond the confines of their communities. The information was obtained through the latest directory of the American Medical Association, personal communications, and through the office of the University Alumni Association. There are factors as death and illness that have interrupted the career of some. Four have died, one has retired and one, who had a brilliant career, has become permanently ill.

Even a casual survey of the table indicates that the majority of the men have taken up as their life work the thing that interested them most as fourth-year medical students.

The star means that in the American Medical Association Directory these men are listed as limiting themselves in their field of practice. A few in personal communication have stated that their work is actually limited although I have not starred it, nor is it starred on the American Medical Association Directory. The reason for this is that they probably have never taken the trouble to fill out the directory cards fully.

CONCLUSIONS

It would seem that the only conclusion of any value which might be drawn from this paper is that, so far as these fourth-year students are concerned, the policy of allowing considerable freedom in the choice of studies during the fourth year appears to have been wise.

Another interesting feature is that the graduates

of this school at this time, as indicated by this table, nearly all went into clinical medicine as their ultimate work as distinguished from research work. It has always been the policy, I believe, of this school, which is one of the best in the country, to develop doctors who come into personal contact with the individual patient rather than research men. I hope this policy will be continued.

C. L. Hartsook, Cleveland, cautions against the indiscriminate use of iodine as a preventive of goiter, especially the use of iodized salt, which is now being very much more extensively used by the public than other forms of iodine, such as sodium iodide, iodostarine and compound solution of iodine (Lugol's solution), probably because of the propaganda to insure its use and also because of the fact that when one member of a family is advised to use iodized salt the whole family must use it, as its use in cooking is always advised. This extensive use of iodized salt, in Hartsook's opinion, appears to be a plausible explanation of the fact that between 25 and 50 per cent of all the cases of hyperthyroidism in which operation has been done here during the last six months appeared to have been directly due to or exacerbated by this agent.

Sixteen cases of an unusual type of hyperthyroidism occurring in men are reported and analyzed. These patients were all in excellent health before the onset of toxic symptoms, and in only two cases was the iodine used because of a supposed need of the patient himself, the other patients being "innocent victims" of the general use of the salt in the family cooking. The high incidence of this disease in men during the last six months, as compared with the very low incidence which Hartsook's previous experience had led him to expect, has been very striking, the most plausible explanation being that men as a rule use a great deal of salt.—*Medical Times*.

RECTAL ANALGESIA IN OBSTETRICS

By LYLE GILLET MCNEILE AND JOHN VRUWINK *

DISCUSSION by John A. Sperry, San Francisco; L. A. Emge, San Francisco; Frank W. Lynch, San Francisco.

THERE are numerous references in ancient literature to the use of narcotic drugs to relieve the pain of labor. These drugs were usually administered as potions, late in protracted labors. Inhalation analgesia and anesthesia has been used in obstetrics since the middle of the nineteenth century for both normal and operative confinements. While inhalation anesthetics are indispensable in operative obstetrics, their use to reduce pain in normal labor during the first stage has not been satisfactory. The use of ether and chloroform requires the services of an expert anesthetist, and cannot be continued over a long period of time without grave danger of injury to both mother and child. Even in the hands of a trained anesthetist the percentage of satisfactory results in producing and maintaining a smooth analgesia over a long period, is very small. The administration of nitrous oxide during the latter part of the first stage and the second stage of labor has given more satisfactory results than either ether or chloroform, but requires unusual equipment and constant supervision on the part of the obstetrician, or anesthetist, if optimum results are to be obtained.

Steinbuchel first recommended the use of morphin-scopolamin in obstetrics in 1902, and following a paper read by Kronig and Gauss in Chicago in 1913, it was used extensively in this country for a short time. It seems to be the consensus of opinion among the foremost obstetricians at the present time that this method is not adapted for general use. Sollman states that "the use of scopolamin-morphin anesthesia is justified (if at all) only in specially equipped institutions and not in private practice, or even in ordinary hospitals."

Gwathmey and associates in 1923 outlined a method of producing analgesia during labor by the use of morphin-magnesium sulphate, given hypodermically, combined with the rectal instillation of an ether-oil combination. This method had been developed at the New York Lying-In Hospital, under the direction of Asa B. Davis and George W. Kosmak, and produced considerable amelioration of pain in over 75 per cent of the patients on whom it was used, with no danger to either mother or child.

* Lyle Gillett McNeile (1021 Pacific Mutual Building, Los Angeles). M. D. Medical Department, University of California, 1910. Graduate study: Sloane Hospital for Women, 1910; Chicago Lying-In Hospital, 1910-11. Previous honors: F. A. C. S.; ex-president Los Angeles Obstetrical Society. Present hospital connections: Senior attending obstetrician, Los Angeles General Hospital; head of the Obstetrical Department, Methodist Hospital; consulting obstetrician, Hollywood Hospital; staff of White Memorial and California Lutheran; head of Obstetrical Department, Santa Fe Hospital; supervising obstetrician, Maternity Service of Los Angeles City Health Department. Scientific organizations: Los Angeles County Medical Association, C. M. A., A. M. A., American College of Surgeons, Los Angeles Obstetrical Society, Los Angeles Surgical Society. Present appointments: Professor of clinical obstetrics, College of Medical Evangelists, Los Angeles. Practice limited to Obstetrics since 1910. Publications: Handbook of Pathological and Operative Obstetrics; numerous papers in current literature.

John Vruwink (1021 Pacific Mutual Building, 523 West Sixth Street, Los Angeles). M. D. Rush Medical College. Hospital connections: Los Angeles General, Methodist, and Hollywood hospitals. Practice limited to Obstetrics. Publications: "Low Cervical Caesarean Section," California and Western Medicine, November, 1925; "Predisposing Factors to Pelvic Relaxation and Prolapse" (Etiology), same, August, 1926.

Immediately after the appearance of this preliminary report we began to use the technique as outlined, in our private patients and at the Los Angeles General Hospital. The results obtained were superior to those previously obtained through the use of any other drug or anesthetic. There were no unfavorable results which could in any way be attributed to the method.

Since the preliminary report was published there have been several modifications made in the technique by Gwathmey. This report outlines the present technique with a summary of the results which we have obtained. We quote extensively from the articles of Gwathmey and Davis, to whom full credit must be given. Their work has been conservative, painstaking, and thoroughly covers the subject.

TECHNIQUE

Preparation for Labor—It is essential that a low soap-suds cleansing enema be given at the beginning of labor, and that this enema be repeated before giving the initial hypodermic if more than eight hours have elapsed after first enema. It is important to tell the patient about the proposed treatment and the relief which it will insure. The necessity for retaining the instillation should be emphasized. There is no question in our minds about the superiority of the results obtained in those patients whose entire confidence has been obtained prior to or at the beginning of labor.

Morphin-Magnesium Sulphate Injection—When the cervix is dilated from two to three fingers, and uterine contractions are occurring at three to five minutes, the first hypodermic of morphin, $\frac{1}{4}$ grain, is given with 2 cubic centimeters of a 50 per cent solution of magnesium sulphate containing $2\frac{1}{2}$ per cent novocain. This is given intramuscularly, preferably in the gluteal region. To insure its being given deeply, a $1\frac{1}{2}$ -inch needle should be used. Since morphin is not freely soluble in the magnesium sulphate solution, we have found it decidedly advantageous to use the prepared ampoules.

After the first morphin-magnesium sulphate injection, and continuing throughout the balance of the labor, it is important that the patient be kept in a quiet, dark room. If relatives are allowed to be with her they must maintain absolute silence. We cover the patient's eyes, but have not found it necessary to put cotton in her ears. We caution against the use of ceiling lights, and for illumination use portable lights below the level of the bed. It is necessary that these patients be watched constantly after the first hypodermic to prevent their falling out of bed.

One-half hour after the first hypodermic Davis gives a second hypodermic consisting of 2 cubic centimeters of 50 per cent magnesium sulphate (without morphin). It is claimed that magnesium sulphate prolongs the effect of the morphin, and acts synergistically with the ether which is to follow in producing analgesia and anesthesia.

The Ether Instillation—If marked relief does not follow the second injection, in twenty minutes give the ether instillation. In our first patients we used the formula given in the preliminary article

by Gwathmey. Gwathmey and associates have experimented with a large number of formulae, but the one quoted in their last published report has given us the best results.

| | | |
|---------------------------|-----|----|
| Quinin hydrobromide | gr. | 20 |
| Alcohol | dr. | 3 |
| Ether | oz. | 2½ |
| Olive oil q. s. ad. | oz. | 4 |

Place the patient on her left side with her buttocks at the side of the bed and anoint the regions about the anus with vaseline to prevent burning by expelled ether. Instruct the patient that during the administration she is not to press down during the pains, but to breathe deeply with her mouth open. Have her "draw up" with her sphincter as if she were trying to avoid expelling gas, thus inducing reverse of peristalsis, and permitting the fluid to run in readily.

A five-ounce funnel (glass or white enamel); twenty inches of rubber tubing (of size to fit the funnel and glass connector); glass connector; soft rubber catheter, size Fr. 20 or 22; clamp similar to that used on Murphy drip apparatus, should be provided. After connecting up the apparatus fill the catheter and rubber tubing with a small amount of warm olive oil, in order to expel air. With the gloved finger in the rectum direct the catheter until it is introduced about eight inches, or above the presenting part if possible. The funnel is now lowered below the level of the anus and the oil allowed to return to the funnel, and any gas left in the rectum is allowed to escape. If an unusual amount of fecal matter or water is present it should be allowed to drain away; the funnel refilled with one ounce of warm olive oil, care being taken to exclude air. The funnel is now elevated and the rectal instillation (warm) poured into the funnel.

The ether-oil mixture must flow very slowly. As the last of the mixture leaves the funnel, clamp the rubber tubing and withdraw the rectal tube. Again caution the patient to avoid bearing down or expelling the mixture. A folded sterile towel held tight against the anus for ten or fifteen minutes will aid her in this.

Immediately following the rectal instillation Davis advises a hypodermic of 2 cubic centimeters of 50 per cent magnesium sulphate (*without morphin*) intramuscularly.

We believe that except in urgent cases no vaginal or rectal examinations should be made within one hour following the rectal instillation. The patient may lie on her back, or in any other comfortable position. It is extremely important that relatives and attendants be cautioned against talking or otherwise disturbing the patient. The room should be darkened and all lighting should be by floor lamps, or portable lights placed below the level of the bed. We believe that the patient's eyes should be covered.

Repeating the Instillation—If the instillation is expelled immediately after being given, we feel that it is safe to repeat it at once. If there is some doubt about a small part having been retained, a small soap-suds enema may be given and immediately siphoned off, in order to assure a clean rectum and prevent an overdose.

If the effect of a first instillation has worn off,

and the patient has again begun to complain of pain, a second instillation may be given provided the patient is not too far advanced in labor (and hence unable to retain the instillation) and approximately four hours have elapsed since the first instillation was given. Davis advises repeating the hypodermic of 2 cubic centimeters of 50 per cent magnesium sulphate *without morphin* at the time second instillation is given. The second instillation should contain 10 grains of quinin hydrobromide instead of the 20 grains given in the first instillation.

Anesthesia at the Time of Delivery—We believe that some inhalation anesthesia is practically always necessary at the time of delivery, and for the repair of lacerations. In practically all of our patients a small amount of nitrous oxide has been given at the time an episiotomy was done, and as the head passed over the perineum. For the repair of lacerations ether has been used.

CONCLUSIONS FOLLOWING THE USE OF THE METHOD AS PROPOSED BY GWATHMEY AND DAVIS

The method, with modifications, has been used on approximately 700 patients, over half of whom were private patients in the Hollywood and Methodist hospitals of Los Angeles, the balance being ward patients at the Los Angeles General Hospital.

1. Some relief from pain has been secured in 90 per cent of the patients.

2. More than 75 per cent of the patients have secured very marked relief.

3. The method is applicable to private practice in the home. It does not necessitate either special training or unusual apparatus.

4. The method is safe for mother and child. We have not observed any bad results in the mother. Particular attention has been paid to the effect upon uterine contractions, progress of labor, postpartum hemorrhage, and increase in the number of operative deliveries. We are convinced that these are not affected by the method. In only one instance was a baby apparently affected by the treatment, and in this one an unauthorized modification of technique was made.

5. We do not believe the method is perfect, but it is our opinion that the technique in carrying out the procedure advised by Gwathmey and Davis are due many failures. We are submitting some modifications.

CONCLUSIONS REGARDING THE SYNERGISTIC ACTION OF MAGNESIUM SULPHATE AS USED IN THE METHOD PROPOSED BY GWATHMEY AND DAVIS

Gwathmey has previously shown that the action of morphin is prolonged when it is administered with magnesium sulphate, and Meltzer has shown that the drug acts synergistically with ether in producing analgesia and anesthesia.

We have omitted the hypodermics of 50 per cent magnesium sulphate without morphin in more than 200 cases, and are *not* able to observe any difference in the results obtained. We have obtained the opinions and observations of resident physicians, interns, and nurses who have been in personal attend-

ance on the patients reported, and in no instance has the slightest effect been reported as a result of not giving this drug.

We have given the morphin with magnesium sulphate, and without. It is our opinion that the relief from pain and the softening of the cervix are due primarily to the morphin, but we believe that at least in a fairly large proportion of the instances this effect is increased when the morphin is combined with 2 cubic centimeters of 50 per cent magnesium sulphate, as advised by Gwathmey.

CONCLUSIONS REGARDING THE USE OF PANTAPON SCOPOLAMIN AS A SUBSTITUTE FOR MORPHIN-MAGNESIUM SULPHATE

In a considerable number of patients we have substituted pantapon, 1/3 grain, with scopolamin 1/200 grain, for the morphin-magnesium sulphate. We do not see any advantage in this substitution. It is possible that the patient who is having very hard contractions when the first hypodermic is given may respond more promptly to pantapon than to morphin.

THE USE OF DIALLYLBARBITURIC ACID AS A SUBSTITUTE FOR MORPHIN-MAGNESIUM SULPHATE

McNeile in a preliminary report read before the Los Angeles Obstetrical Society, April, 1921, drew the conclusion that diallylbarbituric acid has considerable effect in relieving pain during labor, strengthens uterine contractions, decreases the interval between contractions, and promotes relaxation of the cervix.

We have substituted diallylbarbituric acid grains 3 by hypodermic for the morphin-magnesium sulphate in more than 200 patients. One ampoule containing 3 grains of the drug is given by hypodermic when the cervix is dilated from two to three fingers and contractions are occurring at intervals of from three to five minutes. If relief is not obtained in fifteen to twenty minutes the rectal instillation is given. No magnesium sulphate is used. The same treatment may be repeated in three to four hours. Exactly the same conduct of labor has been used as I have outlined in the Gwathmey-Davis technique. The effect sets in quite rapidly—as a rule in from fifteen to twenty minutes. The patient becomes somewhat sleepy, and this effect is increased after the administration of the rectal instillation. The tendency to sleep between the pains becomes very pronounced. In nearly all patients the strength of the uterine contractions is increased and the interval decreased. In our opinion the most pronounced effect has been upon the cervix. In over 80 per cent of the patients there has been an almost immediate relaxation of the cervix and very rapid dilatation. While this relaxation has been marked in patients receiving the unmodified morphin rectal instillation, we believe it is much more pronounced with the diallylbarbituric acid. The rapid relaxation and dilatation has been particularly noticeable in those patients with marked rigidity of the cervix so often found in elderly primiparae.

We believe that there may be a field for the use of this drug as a substitute for morphin in certain cases. Since the drug has absolutely no effect upon

the baby, it may be used later in labor than morphin. We believe that more pronounced rest and relaxation is obtained in prolonged labors, particularly due to rigidity. We are considering its use in the out-patient service.

DISCUSSION

JOHN A. SPERRY, M.D. (490 Post Street, San Francisco)—The authors are to be congratulated upon the precise character of their report with the large number of cases which makes this contribution most valuable.

Without question this method is the most satisfactory yet employed in the alleviation of hard pains in the latter part of the first stage of labor.

It is a well-known fact that ether and morphin vary widely in their effects on different individuals. It may require, for instance, in one individual three times as much ether for surgical anesthesia as in another individual of the same weight and age. This is to a certain extent true in the action of morphin. One patient may be soothed and quieted by its influence while another, although pain be relieved to a certain degree, will be wildly excited. In my experience these considerations constitute the chief drawback to this method as a routine. Admitting that the technique and surroundings are constantly the same, the results vary widely. This is due to the above-mentioned different reactions of the individual.

I have seen some patients who are markedly nauseated and excited after the administration. In this comparatively small group the effect becomes a nuisance rather than an aid. This group corresponds to those well-known individuals whom ether and morphin excite and nauseate. I have also seen a few cases where there was intense rectal irritation following the employment of rectal oil and ether. This group on the whole are probably not greatly helped when everything is considered. These considerations make me feel that the routine employment of this method in every obstetrical patient is not advisable. For instance, the multipara with a soft cervix, and apparently undergoing the type of labor which will terminate rapidly, will not begin to suffer greatly until nitrous oxide gas and oxygen are indicated. On the contrary the elderly primipara in whom little progress is noted after severe pains, and in whom it is apparent that the first stage of labor will be long and trying, is I believe a fit subject for the Gwathmey method.

L. A. EMGE, M.D. (350 Post Street, San Francisco)—Doctors McNeile and Vruwink have discussed their observations on the Gwathmey rectal analgesia in an admirably critical fashion. After an experience of nearly three years with this method I have come to believe that it is best suited to the primiparous woman. The uncertainties of multiparous labors are better dealt with by chloral hydrate by rectum and small doses of morphin by hypodermic administration aided by a nitrous oxide-oxygen analgesia when necessary.

In using the Gwathmey method I have found that the expulsive phase of the second stage of labor is often prolonged. This necessitates a more frequent use of low forceps. Similarly, when nitrous oxide analgesia becomes necessary it is not always satisfactory because of the lack of cooperation on the side of the semiconscious patient.

From time to time, in spite of good technique, I hear of tender rectums. As soon as soreness is complained of I give 5 to 10 per cent bismuth subnitrate in mineral oil into the rectum once or twice a day. It gives relief promptly.

I have also observed that babies are commonly slightly blue at birth, assume a mild opisthotonos and are slow in crying. While this alarmed me at first I now disregard it as a retardation and do not resort to stimulation any longer. The normal clotting time of the cord blood is not affected.

Since using the Gwathmey analgesia I have found that cervical lacerations occur less frequently and less extensively. No doubt the cervix dilates more readily and more completely with this method.

I believe with the essayists that the Gwathmey analgesia fills a great need in the first stage of labor in primiparous women and that in posterior head positions

it is of inestimable value. In multiparous women the method has not been satisfactory in my hands.

FRANK W. LYNCH (University of California Hospital, San Francisco)—I have used the Gwathmey method in approximately 300 patients, and in order to talk from facts have analyzed the labors of the first 150 of these, the series consisting of eighty-four primipara and sixty-six multipara.

The indications for the medication varied within wide limits. They were not compelling in the majority, to whom the drugs were given as a routine in our efforts to obtain a painless, yet safe and normal labor. They were definite in a small number consisting of the following three groups: (1) a few individuals who from the very first pains showed an inability to withstand what we regarded as merely normal first-stage uterine contractions; (2) a few women in whom labor was initiated with pains unduly prolonged, which were followed by similar ones in a very rapid succession; (3) a few women who, selected for the so-called "test of labor," showed signs of exhaustion before the cervix was completely dilated. A slight disproportion between the size of the fetus and the maternal pelvis existed in each member of this group, not sufficiently marked, however, to warrant an elective caesarean section.

Patients' Statements—Eighty-four per cent stated that they had nearly complete, or (rarely) complete relief from pain after the course of drugs were given. On the contrary, 16 per cent regarded the treatment as a failure. The twenty-four failures were comprised of the following groups: Eight patients (three primipara and five multipara) in whom the labor unexpectedly progressed so rapidly that either the routine could not be completed, or else the labor was completed before the drugs had time sufficient for completed action. Twelve individuals in whom the effects of the medication wore off before the second stage. These were given gas and oxygen as supplementary medication. The labor was prolonged greatly in all of these twelve women six of whom had occipito-posterior positions. While the treatment may have been started too early in this group, it is equally possible that the effects of the drugs were not sufficiently prolonged. Three failures are ascribed to lack of cooperation, since the patient made no serious attempt to retain the enemas which were given at a proper time. The other failure appears due to an idiosyncrasy for morphin, the patient complaining that the hypodermic accentuated the pain.

Attendants' Statements—The recorded impressions of the attendants states that there are thirty-five cases which were more or less complete failures, eight of which only should be ascribed to an incomplete or faulty routine.

Effect on Labor—We find that labor was frequently prolonged (defining the duration of labor as that period of time elapsing between the first painful regular contractions of the uterus, and the expulsion of the fetus and placenta). A study of the duration of labor usually contains an unknown error, because true labor occasionally follows almost immediately a false labor, which has had uterine contractions undistinguishable from those of true labor, except that they have not caused dilatation of the cervix. The average duration of the labors of the eighty-four primipara was twenty-one hours, of the sixty-six multipara it was thirteen hours, or three and one hours, respectively, longer than that usually considered normal. Labor was completed within eighteen hours in only 61 per cent of the primipara, and within twelve hours in only 58 per cent of the multipara. In a series of 5500 of my cases in another service, although containing a large percentage of contracted pelvises, 68 per cent of the primipara delivered within eighteen hours, and 71 per cent of the multipara delivered within twelve hours.

The prolongation of labor in our Gwathmey cases was due nearly always to a retarded first stage, since it is not our rule to allow a prolonged second stage provided the head is low down in the pelvis. Therefore forceps were used in twenty-four cases or 16 per cent, as contrasted with 10 per cent of forceps deliveries in a series of 2316 cases also studied in this clinic. The higher incidence of forceps in the Gwathmey series supports an argument that the efficiency of the pains is frequently diminished by action of the drugs. Certainly the average duration of labor was not prolonged by a high percentage of abnormal presentations. In 188 of our Gwathmey cases

there were 100 L. O. A.; 57 R. O. A.; 18 R. O. P.; 7 L. O. P.; 6 breech; no transverse, nor brow nor face presentations.

A prolonged first stage of labor may not, however, be an occasion for alarm. We review our facts since they may be of interest to practitioners who plan to use the Gwathmey methods in the home. There were no bad results in mothers because of the prolonged labors. We may confidently argue that a long labor without pain may not reduce the resistance of a woman as much as a shorter labor with much pain, provided of course that other things are equal. One hundred and twenty-two of the 150 women finally delivered spontaneously.

Effect Upon the Child—I am not so certain about the action of the drugs upon the fetus, and see no reason to change an opinion of years standing that the relief of pain during labor carries a small but definite risk to the child. The child's condition was good or excellent in 126 cases, but was poor in seventeen indicating artificial resuscitation; seven only of this group were forceps cases. There were five premature cases which may be eliminated from the discussion. The seventeen cases, however, merit consideration, and although they all left the hospital in good condition, it is well to remark that we do not yet know all about the future of the child that is born in poor condition and has required vigorous efforts for resuscitation.

There were two dead-born full-term children; one lost during a breech extraction; one stillborn for unknown reasons, the death being ascribed to intrauterine asphyxiation. The mother had two hypodermics and one instillation. She felt life only during the first few hours of normal labor. Her Wassermann was negative and the placenta microscopically normal.

There were no women in the series who complained of tender or irritated rectums for which the routine appeared accountable.

Dilatation of the Cervix—We are of the impression that the cervix frequently dilates more rapidly and evenly while the patient is under the drugs. Study of our cases, however, does not enable us actually to prove this point, since cervixes do not dilate in a manner uniform in all women. There is ever present the possibility that dilatation might have been equally facile had the women not been given the treatment. We have seen in the follow-up no increase or decrease in the frequency of slight cervical tears.

While the method in our own hands has given better results than the scopolamin-morphin technique, it has definite limitations. Our own experience has given us the following conclusions.

1. Relief of pain cannot reasonably be expected in 100 per cent of cases because our results show that it took more than three hours to obtain the fullest action of the drugs in one-third of cases. In any large series there are many patients who complete their labor within three hours after the cervix has dilated sufficiently to admit three fingers. Relief was obtained within one hour in only 12 per cent of the series.

2. The relief of pain depends in large measure upon the preliminary hypodermic of morphin. For this reason the method is not proper as a routine for all multipara, since children born after an unexpectedly short labor may exhibit the effects of morphin. While many children born even within an hour after a morphin injection may show no embarrassment of respiration, there is no series of sufficient size that does not contain fetal deaths from this drug. In other words, there is an inevitable risk of losing children born shortly after a morphin injection, although it may not appear in series of small size.

3. The method utilizes quinin as a means of augmenting uterine contraction. A repetition of the original instillation may carry risk to fetal life. There are cases in the literature as well as in my own experience that indicate that 40 grains of quinin may cause fetal death.

4. Cases should be selected for the present Gwathmey technique because the method often diminishes the strength of the uterine contractions. The method should not be given routinely to primipara with unengaged heads provided there is any reasonable suspicion of a relative head and pelvis disproportion; nor to any case in which normally strong pains are *sine qua non* to a successful delivery.

GEORGE CHISMORE

A SKETCH OF A TRUE PHYSICIAN

By DOUGLASS W. MONTGOMERY, M. D.

*"Die Stätte die ein guter Mensch betrat ist eingeweiht;
 "Nach Hunderten von Jahren klingt sein Wort und
 seine Tat dem Enkel Wieder."*

I HAVE no doubt that there are those who still can remember George Chismore as a fellow-worker, and yet he belonged to an age which has vanished, and which to us seems so long ago.

The very form of the name, George Chismore,



GEORGE CHISMORE

speaks of the past, as it consists of only two elements, a surname and a Christian name. When he was born there were fewer people in the United States and these were more scattered, so that there was less necessity for more extended names.

He lived at a time in which men quickly changed their occupation, for Chismore began as a sailor lad, became a miner, was associated with a dentist and took up that calling, and, as he himself said, rapidly grew to be a good dentist, and finally read medicine with a doctor and became a physician.

He belonged to an age in which it was not necessary to have a degree in medicine in order to be a contract surgeon in the United States Army.

It is difficult to comprehend that the universities when Chismore was a young man were principally

engaged in working within a simple curriculum especially devised for the education of clergymen, lawyers and school teachers, and have since evolved into complex organizations teaching many technical subjects, chief among which is medicine. It was the age of the frontiersman, of territorial expansion and of the purchase of Alaska. It may surprise some to learn that Chismore marched across the desert that is now Los Angeles County, which then included Orange County, camping at the infrequent springs. On this march with United States troops he had an interesting experience. One afternoon the lieutenant in command and the doctor came to the bank of the Gila River in what is now Arizona. They were hot, tired and dusty from the desert, and the blue running water looked so inviting. They quickly stripped and plunged in, and as quickly scrambled out; they had struck a hot spring. Then on looking up they realized the meaning of the row of naked troopers sitting along the bank. They had had a similar experience, and they were waiting to see how the lieutenant and the doctor would perform. Army discipline, however, forbade them to utter a sound or to relax the rigidity of their features.

Although he had so few early opportunities for education, Chismore wrote very acceptable verse, and his literary tastes were good. Even in his last sickness he busied himself comparing the Douai Bible and the King James edition, and his comments were both entertaining and thoughtful. Chismore was not a learned man. How could he be? He was taken by his father when a little boy of 8 years and put on a sailing vessel going around the Horn. I do not think that he ever saw the inside of a school after that, or, for that matter, before. The impress of this lack of literary education always remained with him in his persistent mispronunciation of certain words he was continually employing, such as "tremdous," and "prostrate" for prostate. He was thoroughly Anglo-Saxon in that when a mispronunciation was once definitely adopted he never corrected it. Neither his friend Leo Newmark nor myself were ever quite sure that he did not often mispronounce words through an affectation of roughness. Temperamental as he was it would not be altogether unlike him to do so. He would say "back-cilli," and if this happened in Harry M. Sherman's hearing, one would quickly hear the correction, "Bacilli, Chismore." Chismore would either give a grunt or affect not to hear him. When aroused to anger, however, he could unpack a word-board astonishing in its accuracy and fluency.

His medical education was as faulty as his literary, but his native gifts of trustworthiness, honesty, tenderness and true commiseration for the sick, and his acuteness of observation finally made him an ideal physician. When I myself fell ill I wished no one but Chismore, and I was no exception.

Of course he had one advantage of the medical student of today in not being forced to learn a great many useless things. I remember an oculist who required his class, taking a general course in medicine, to learn the different layers of the retina, although he himself had never made a practical study of them, nor did he draw any practical inferences from their theoretical study. Teachers have

continually to learn the lesson that Rudyard Kipling conveys, that it is not necessary to be able to produce and lay an egg in order to pass judgment on an omelette.

It would undoubtedly be advantageous in many schools of medicine, after the final examinations, to give each graduate a large glass of the waters of Lethe to clear out his constipated memory.

Chismore had a winning geniality and a gay humor combined with uncompromising probity and kindness of spirit. With very little sloppy sentimentality, however, he was one of the most sentimental of men. But whenever he would break over the line of common sense in Sherman's hearing the reproof would come with startling directness, and I never saw him resent it. The reactions between these two candid self-respecting and mutually respecting men were most interesting to contemplate.

Politically Chismore was entirely sentimental, and also some of the gravest mistakes of his life were intimately linked with his sentiments. His attachment to the medical profession was largely of the same nature. Those within the regular profession could hardly go wrong, and with those outside of it he would have no commerce or fellowship whatever. In fact, it was here that he showed an intolerance, which I noted in no other detail of his character. On the other hand, true to the principles he held in government, he would allow of no interference with the right of the individual to choose whatever kind of medical attendant he wished, while at the same time tenaciously holding to his own right not to have any dealings with the medical attendant so chosen.

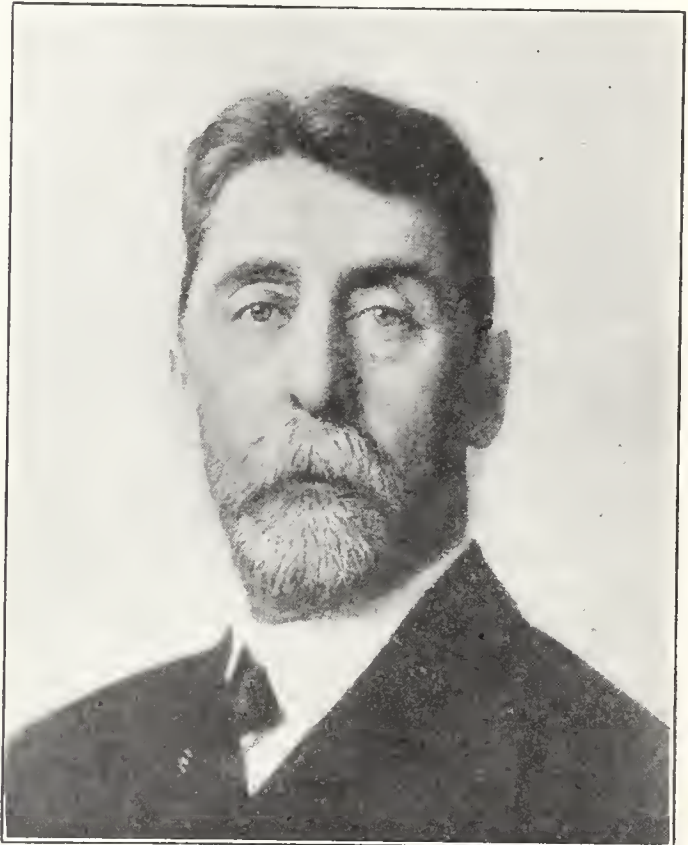
If a member of the regular profession went wrong he would strive with him as with a brother to lead him back into the right path, and his personal influence in such cases was very great. I well recall a member of the Obstetrical Society, to which I at one time by chance belonged, who told us we could all go to hell as far as he was concerned if it were not for George Chismore. This, however, is only one instance of the attachment men showed for Chismore. Another is that of the late Eugene Murphy.

After the purchase of Alaska by the United States, Eugene Murphy, then a lieutenant, was ordered to Fort Tongas, Alaska, April, 1868, in command of the first detachment of our troops sent into that territory. Although Chismore did not yet have a medical degree, Lieutenant Murphy had made it a principal condition that Chismore should accompany him. Here he spent two and one-half years. It was then such an out-of-the-way place that General Grant had been elected President six months before the news reached them.

He became deeply interested in the Indians, and sent much material to the Smithsonian Institute, and even made the governors a proposal to remain in Alaska, and to continue to work for them with the condition that when he became incapacitated by age they would support him. This request was refused. He knew, of course, that without such support as age approached he would be killed as a useless member of the tribe. This kind of employment, however, so appealed to Chismore that I have heard

him regret leaving it, even after he had achieved a striking success in the practice of medicine.

An incident showing a curious side of Chismore's character occurred on landing in Alaska. A trooper with a led horse met him at the boat, and together they rode to the fort. The tongue of a stirrup strap buckle happened to stand out in such a way as to dig into his leg. He imagined that it was a hazing trick to try his mettle, and he allowed it to dig all the way to the fort. When they reached their destination his boot was full of blood. One might say that this was very foolish, and it undoubtedly was,



HARRY M. SHERMAN

but it was very like Chismore. Many things that Don Quixote did were also foolish, but if it were not for the Don Quixotes all the world might be filled with cynics and Sancho Panzas.

I first became acquainted with George Chismore through Harry M. Sherman on my arrival in San Francisco in the spring of 1886. While in Chambers Street Hospital, New York, I had a friend named Sherman, and thinking that there might be identity or relationship, I called. I found there was neither, but this chance call developed into a lifelong friendship. At that time Chismore and Sherman had offices together in a rickety building at 914 Market Street. In those days the buildings were primitive, and the physicians' offices had a very Bohemian, bachelor-like appearance. Even Dr. Levi C. Lane, a man of wealth and the principal surgeon in the city, had his offices in an old tumbledown frame shack on Mission Street. He seemed to be afraid of getting better quarters for fear of frightening away his country patients.

There were three rooms in Chismore's office; a rather large, low-ceiled waiting room, a small room which served as a laboratory and consulting room,

and Chismore's bedroom. Sherman slept on a folding bed in the waiting room. A stairway leading up from the street gave on a landing directly in front of the waiting room door. It was almost as if the front door led directly off Market Street. Chismore was a frontiersman, and it did not occur to him to lock this door or the one leading into his bedroom, and his friends became alarmed lest he should be murdered in his bed. Chismore pointed out to them that the head of his bed, his bedroom door and this front door were all in a line, and that the front door was so shaky, and so much of it was made of glass, that on being opened it would clatter so as to arouse him. Being aroused he felt he could easily defend himself with one of the numerous pistols always at hand. However, when he saw that his friends were indeed alarmed, and that his carelessness was causing them pain, he put a lock on the door, and that same night his offices were broken into and several things stolen. He was now able to say with triumph, "What did I tell you about the dangers of locking up?" He nevertheless continued to lock his door, but more out of commiseration for his friends than in fear for himself. His was the ready blow, as well as the good comradeship of the frontiersman. In Alaska he lived in a tumultuous but by no means an anarchic land.

Speaking of firearms, the bedroom resembled a gun store. Once on going up to Shasta with Clinton Cushing, I asked Chismore to lend me one of his rifles. I quickly found that I could have asked him for anything else rather than that. Like a true hunter he regarded his rifle as an integral part of himself.

Martin Regensburger once told Newmark that he played a game of poker in Chismore's arsenal. There happened to be an insufficient supply of chips which was made up by employing cartridges. Occasionally one of the players, more intent on the game than on the potentialities of the "chips," would "come in" with dangerous vehemence, whereupon the players would scatter.

Chismore's office hours were in the morning, as was usual in those days in San Francisco, and Sherman occupied the rooms in the afternoon. Sherman's first care in the afternoon was to clear out the oldest urine specimens in Chismore's row of precipitating glasses. He judged the age of the vintage by the odor. Chismore would keep them indefinitely. About the time he was finished with that I would arrive after my lunch, and Sherman and I would lie on the bed and shoot at a mark on the wall beyond its foot. If we lacked lunch there was always a great plenty of jerked venison, the results of Chismore's hunting expeditions, lying around, on which we could reflectively ruminate. About this time Sherman fell ill with tender gums and a great flow of saliva. All his friends gave him remedies, and some proffered a diagnosis. It was fortunate we did not know of Vincent's angina then, or Sherman might have still further suffered from a treatment for that interesting affection. At last Chismore hit on the cause; it was mercurial salivation from the fulminate vapor of the cartridges settling down over the bed in the low-ceiled bedroom, and inhaled by the sport-loving victim.

One can imagine the condition of the bed after we had been lying on it for the better part of the afternoon office hours, but I never heard Chismore complain.

The above was only one instance of Chismore's keenness of observation and deductive ability. Another was told to me by Dr. W. F. Arnold, U. S. N., who showed Chismore a curious lump of lead he had acquired in China during the Sino-Japanese War. Chismore turned it over carefully in his hand and then said, "It consists of two fused bullets, fired by opposing armies. They must have fused in the air and then entered the body of a Chinaman. Chismore had noticed that the bullets differed, and therefore were fired from two different makes of rifles in the two different armies, and then he pointed to a blue thread, which he inferred was from the blue jean cloth of the Chinese uniform.

It is also related that while crushing a stone Chismore remarked that he felt something unlike anything he had ever felt before. When extracted it was seen to be a piece of a Swedish newspaper. On reporting this before the County Medical Society someone asked how this foreign body came to be in the bladder. Chismore replied, "Probably through the circulation."

The ability to make a quick diagnosis is undoubtedly valuable, but it is also a dangerous gift. Years ago I saw a keen-looking man in a clinic in Edinburgh making quick-fire diagnoses and, far from being lost in admiration, I regarded it as almost sacrilegious. I had been trained in Germany and in other schools to pursue a method. It might be all very well for Bell, for it was he, the prototype of Sherlock Holmes, to do this, but it was not right to set such an example to his students.

For many years Chismore was active in the work of the California Women's Hospital, and by his own work and through contributions by his friends was one of its principal founders. Chismore lost this position at a time of life when he was still capable of strenuous endeavor, and he turned his attention to genitourinary work, in which he made a most enviable reputation. His apparent misfortune was in fact a piece of good luck, as the development in gynecology pursued a road along which Chismore probably would not have traveled.

One of the main incentives turning him to genitourinary work is interesting. His father suffered from stone in the bladder, and Chismore conceived the idea of perfecting a lithotrite by which one could crush a stone and wash out the fragments at one sitting. He naturally inclined to working in metal. His immediate family were all employed in the Remington works, and he himself, as before mentioned, was very fond of firearms. In one of his rooms he had a bench fitted out for working in metal. His lithotrite was a success, and he relieved his father and many another.

Having definitely set his foot on the genitourinary trail the reaction on Sherman was quite characteristic. He went to the only medical book store at that time in this city, Duncombe's, and ordered all the recent literature on this subject, and stacked the books up beside Chismore's bed. Chismore began at the top and read down clear through,

and never took a note, as he had not that kind of training. He was reflective, however, and in his walks through the city in visiting his numerous patients he had plenty of time for the exercise of this faculty, and so acquired what George Elliot would call a nutritious sediment.

And, by the way, I suppose almost all of Chismore's reading was done on his back on the much frequented bed before mentioned. He was like the clerk of Oxenford in Chaucer's *Canterbury Tales*, "To him was lever have at his beddes heed twenty bokes." This couch of Chismore's was therefore, as we have seen, a dormitory and a library for himself, and a shooting gallery for Sherman. It was not long vacant in any day of twenty-four hours.

If Chismore had not been reflective and mentally alert he, with his natural aptitude for mechanics, could easily have become a mere hand workman. Two things kept him away from this disaster, for adherence to an exclusively artisan occupation must be so regarded. He was interested in managing his patients, and studied their peculiarities and weaknesses in order to turn this knowledge to the patient's benefit, and he was interested in good literature, dealing in human nature in its broader more spiritual sense. Medicine as a handicraft is not a joyous or lightsome occupation, but when pursued as Chismore pursued it, it never lacks interest.

We have spoken of Chismore walking about the city. Although when I came to San Francisco he had a large general practice he attended to it on foot and in the street cars. Early in practice, through no fault of his own, his horse and buggy were seized by the sheriff, and never after would he have a vehicle, and this resolution was temperamental also.

Chismore had an excellent opinion of himself and of his ability, but he never imparted the impression that he considered himself better than the person with whom he was conversing. Successful medical men tend to become conceited, and to consider their contemporaries as having inferior ability. When once this unfortunate attitude of mind is acquired it is impossible to conceal it. The more successful the conceited man is the more unfortunate the results emanating from it.

Every age is one of transition, but the years through which Chismore lived were very changeable indeed. Economically he witnessed the invasion of the vast spaces of the West, mechanically he lived from ox bows to autos, and he saw the last attempt made to give the United States fiat money. Here it was interesting to witness the struggle between loyalty to his political party and his common sense. One day he gave a silver half-dollar to a beggar, then turning to me laughing, said, "It must be good; that fellow takes it." He saw the American Government during the Civil War and afterward evolve from a very simple governmental apparatus to a more and more complicated one. The differences in his own social status as he advanced in life were no less great. In the beginning, and for years, he was very poor. When he started in practice in San Francisco he was so poor that he was unable to purchase a good meal, and at one time lived for several days on milk alone. He told me that at this time he

used to run a certain distance each day to observe if he retained his strength. At the end of five days he got a fee, and enjoyed a good big French dinner, the memory of which abided with him and probably accentuated his naturally charitable inclinations. A nurse told Doctor Newmark that he had received many a hundred dollars from Chismore personally for attendance on his impecunious patients. He was, however, shrewd and industrious, and achieved before the end of his life a nice competency. His intellectual evolution was a most remarkable performance. He must have begun life with no schooling at all, and he became a thoughtful reader of good literature, and a worthy companion of cultured men, as of J. Dennis Arnold, Harry M. Sherman, and Robert Louis Stevenson.

We have said that Chismore belonged to an age which seems so long ago. How does this statement agree with the fact that some of his intimate acquaintances are still alive? The answer is simple. Many of his closest medical friends were members of the Friday Evening Club, out of which evolved the San Francisco Polyclinic, and these were all young men with the exception of Chismore. He was much older than any of us, yet no one considered that an incongruity. He must have been about 50 years of age when I first met him in 1886. This ability of an older man to mingle in a companionable way with men in the younger striving years is granted to very few. Although he had many peculiarities he was never regarded as being light or frivolous. As indicated by the foregoing his influence among medical men was very great indeed, and his influence in the community was no less great. This he owed to a natural nobility of character.

Intellectually, professionally and financially he was a successful man, and he fortunately had a character so nicely blended, so amiable and so fair-minded that he was unspoiled by his success. This possibly must be taken as his greatest achievement, as it represented a mastery of himself.

The battle of mankind against disease is already more than half won, but by far the greater part of the fighting remains. It is believed that this paradox succinctly states the situation as it appears to students of public health, and it is hoped that its elucidation may clarify it for the more casual observer. A battle is more than half won when one side obtains a decided moral advantage over the other. For many centuries this advantage rested with the powers of disease, but it now attaches definitely to the human side of the struggle. The powers of disease are nothing more mysterious than the forces of nature, blind but inevitable—perverted and malignant perhaps from the human standpoint, but susceptible of analysis and direction by human means. As long as they were regarded as supernatural and inscrutable, disease held the moral ascendancy over man. Now that they are known to respond to the methods of scientific inquiry, they have been shorn of the protective mantle of mystery which for ages rendered them most impregnable.—Hugh Cumming, in the *Forum Medical Series*.

Goats are being used by the Health Department of New York City for the production of a serum for the prevention of the development of measles in susceptible children who have been exposed to the disease. Although the laboratories of the Board of Health have already perfected an effective antimeasles serum from the blood of convalescent patients, it has found it impossible to obtain enough of the serum for use as a prophylactic.—*M. J. and Record*.

THE X-RAY AND CONSERVATIVE SURGERY IN THE TREATMENT OF MALIGNANT TUMORS OF THE TESTICLE AND SCROTOM[†]

By MILEY B. WESSON, M. D.

CANCERS of the testicle have always been of interest to surgeons because of the malignancy of the disease, the youth of the sufferers, and the comparative futility of operation after metastases have occurred. Radical surgery is not without danger and the effects of radiation on the tumors composed of embryonal tissue are striking. This paper is a preliminary report of the treatment of four cases of seminoma of the testicle treated by orchidectomy and deep therapy (one case not completing treatment); and of a very rare sarcoma of the scrotal raphe.

Heredity seems to play little, if any, part in this disease. Trauma is of doubtful importance; there is a history in 20 per cent of the cases, but that is of little interest, as all men at some time or other have received a blow on a testicle. Sexual activity may be a factor, the majority of cases occurring between the ages of 20 and 40, the period of greatest vigor. The notion that the abdominal testicle is peculiarly liable to tumor formation has no extensive statistics to support it. However, undescended testicles in the inguinal canal, subject to frequent bruising against the pubic bone are more prone to be cancerous than those in the scrotum, and this is the only real evidence that trauma may be of etiological importance.

Clinical recognition is primarily a matter of exclusion, as the tumors present no pathognomonic signs or symptoms. They must be differentiated from gumma, hematocele, hydrocele, and tuberculosis. Since early and accurate diagnosis of every testicular enlargement is essential, immediate surgical exploration, because of the extreme malignancy of the tumors, is indicated in all doubtful cases. The presence of a positive Wassermann and an enlarged testicle does not necessarily indicate gumma. If intensive antisyphilitic treatment does not cause immediate disappearance of the tumor, exploration is indicated. Two cases are reported, one was gumma and the other was seminoma.

The patient seeks advice on account of a swelling in the scrotum which he may have noticed for months and which has gradually increased in size. Pain is present in 50 per cent of the cases. As a rule, the normal shape of the testicle is preserved and the surface is smooth. The tumor is freely movable and not translucent, although there is generally an accompanying hydrocele which transmits light about the periphery. The surface blood vessels of the tumor are greatly dilated and tortuous, and because of this increased blood supply the cord is large, as is the case in hematocele and gumma.

The hydrocele present should not be aspirated, as the procedure is not only of no diagnostic importance but is misleading and dangerous. This is illustrated by two cases seen recently: in one a diagnosis of

traumatic hydrocele was changed to malignancy after a large tumor had been revealed by the removal of 180 cc. of fluid. However, before consent was obtained for operation some antiluetic treatment caused the tumor to disappear. The other patient, a youth of 20, had a swelling of the left testicle of three months' duration, and no history of trauma. There was a history of aspiration of the hydrocele, which apparently injured the tumor and stimulated the growth. An orchidectomy was done, teratoma found, and a week later the radical operation performed. At the end of three months the patient returned with large inguinal metastases, cone-shaped, apparently arising in the skin at the site of the introduction of the trocar. This mass was removed, but death followed shortly from bone and pulmonary metastases, deep therapy being of no value. All swellings of the testicle must be considered as malignant until proved benign, hence immediate surgical exploration is indicated in all doubtful cases.

There has been little unanimity of opinion as to the proper classification of testicular tumors. Chevassu teaches that tumors should be divided into two groups: (1) the seminoma of Chevassu, a single cell tumor of a solid, medullary large cell type derived from the cells of the spermatogenic tubules, and (2) teratoma, or mixed tumors. These two types of tumors which are equally common present certain vital differences, the most important being that teratomata (heterogeneous type) are relatively not influenced by deep therapy, whereas seminoma (homogeneous type) are probably cured by this procedure.

Treatment is of three types: (1) simple castration, (2) radical operation for teratomata, and (3) castration and radiation for seminoma.

Simple castration is justifiable only in cases of benign tumors. It is never justified in malignant tumors. Orchidectomy is 100 per cent effective when there are no metastases, but such may occur with the beginning of tumor growth and quickly pass through the primary field of lymph glands to the opposite primary field or into the inoperable secondary field.

The drainage of any organ is of paramount importance when surgical procedures are to be planned, for it is the lymphatic distribution which determines the extent of the operative field. The radical operation is merely an application of the fundamental principles in the treatment of malignant growths, that is, the wide removal of the original growth with its primary lymphatic field and all intervening tissue in one complete mass.

When tumor cells have passed beyond the primary field the case is considered inoperable. Metastases may take place by the lymphatics, the blood, or both, depending upon the predominance or admixture of carcinomatous or sarcomatous elements. Injection experiments of testicular lymphatics have demonstrated that there is no barrier between the testicles and the thoracic duct except the lumbar glands, and they are an imperfect guard, fluid passing rapidly up to the entrance of the thoracic duct and into the subclavian vein; also, the injecting fluid passing quite readily to the opposite primary field, going first into the glands around the origin of the

[†] Abstract of paper read before the Nevada State Medical Association at Reno, September 24, 1926.

superior mesenteric and coeliac axis arteries and downward to the external iliac group.

There are three objections urged against the radical operation: (1) the impossibility of removing completely the lymphatic field without grave injury to vital structures; (2) the high operative mortality of 12.4 per cent; and (3) the ill-proportionate risk of operation when in so many cases the tissue removed shows no metastases. However, unless one follows the teaching of Quick, who maintains that the outlook is made definitely worse by an attack on the lymphatics because it leads to implantation of the growth in the cellular tissues, a more fatal condition, the choice of treatment for teratoma remains the radical removal of the tumor and its primary lymph area introduced by Gregoire, in 1905, popularized by Chevassu and more recently advocated by Hinman and his coworkers, followed by radiation.

Simple orchidectomy with high ligation of the cord, followed by thorough radiation of the lymphatic area, is apparently efficacious in cases of seminoma even when abdominal metastases are present. The ideal treatment by this method is to radiate before operation with low voltage to the testicle and high voltage to the abdomen. High voltage radiation is repeated two months later, the testicle having been removed in the interim. Emphasis is laid upon the necessity of not handling a testicle before division of the cord because of the danger of lymphatic embolism. As a rule, however, the patients are not going to submit to the radiation treatment until a positive diagnosis of malignancy is made. Hence, my routine is to explain the necessity of the radical operation in case the tumor proves to be teratoma (and uniformly all in this series refused to consider such procedure), expose the testicle and if the superficial veins are dilated and tortuous, then do an immediate orchidectomy. The diagnosis is confirmed by frozen sections, and as soon as the patient recovers from the anesthetic x-ray treatments are begun, a second course being given in six weeks.

If radiation is of any value in any form of cancer it will cure seminoma and metastases. It has long been known that the sex cells are very sensitive to the action of the x-ray or radium, relatively slight exposure causing their degeneration without any changes in the other constituents of the glands, and seminoma arise from the spermatocytes of the epithelium lining the seminiferous tubules. Furthermore they are slow in development, and remain limited for a considerable length of time. The routine followed in this series by John Rehfish at St. Luke's Hospital is to treat the pelvis on four to six successive days using 40 cm. round "Port," 200 kilovolt peak, .5 mm. copper and 1. mm. aluminum filter, 80 cm. focus—skin distance, and 360 to 240 milli-ampere minutes. Six weeks later the treatment is repeated.

A number of years ago Robert Abbe called attention to the fact that cancer in the beginning is an absolutely local disease. Cases operated upon early, whether conservative or radical surgery is employed, are cured because no lymphatic involvement has occurred. However, all surgeons will give a bad prognosis, or at least a guarded one, when lymphatic dissemination is known to have taken place. Furthermore, all cases with metastases treated by orchi-

dectomy alone will succumb. Comparative statistics are relatively valueless because there is no way of determining in which cases the tumor is limited to testicle or the metastases are confined to the primary field of lymph glands, and the mortality depends upon metastases. For instance, Hinman published seventy-nine cases with the radical operation, in which there were 43 per cent cures and an operative mortality of 12.4 per cent; Handfield-Jones collected twenty-two cases from St. Mary's Hospital treated by orchidectomy alone in the preceding fourteen years with 59 per cent cures. Rice reports fifty-two cases from the Mayo Clinic with 46.5 per cent cures by orchidectomy.

It is difficult to compare the results of radiotherapy with those of operation as the inoperable hopeless cases are the ones usually referred for radiation. Pfahler reported three cases of large abdominal metastases treated by radiation alive after ten, seven, and five years.

The prognosis in all cases of teratoma is bad, for even when there are no metastases or they are entirely removed there is an operative mortality from the radical operation of 12.4 per cent. In addition there is danger of incomplete removal, the metastases having passed beyond the boundaries of the primary lymph-bearing areas. It is not uncommon to have deaths from metastases in the secondary lymph-bearing area, the primary having been removed and found negative.

The hope for the sufferer lies in (1) early diagnosis and operation before metastases occur, (2) for teratoma, castration and removal of primary lymphatic area, since x-ray does not kill these cells and it is possible that the metastases have entered the primary field and not gone beyond, and (3) for seminoma, orchidectomy, and two thorough courses of deep therapy.

1275 Flood Building.

There are something like 500,000 words in the English language, but the average person gets along very well with a vocabulary of about 800 words.

The physician and surgeon, if he is to be proficient in all the branches of his exacting profession, must be acquainted with approximately 15,000 words. He must know the names of 707 arteries, 71 bones, 79 convolutions, 433 muscles, 230 nerves, 85 plexuses, and 103 veins. Besides, he should know the names of 1300 bacteria, 224 eponymic diseases, 500 pigments, 295 poisons, 88 eponymic signs and symptoms of diseases, 744 tests, 109 tumors, making a total of 4968 subjects relating directly to his calling. There are also the names of about 10,000 chemicals and drugs, of which he should have an adequate knowledge, bringing the grand total to 14,968 words, without taking into account the words he uses in ordinary conversation.—American Trust Company Service.

We are to have two years more of the work under the Sheppard-Towner Act, but Congress has voted that its operation will cease in 1929.

Massachusetts and the few other states which did not accept the provisions of the act are vindicated. Either the results do not justify the operation of this act or Congress has come to believe that the Massachusetts attitude is ethically correct. No state is so poor or so ignorant that it cannot give all needed instruction to its people.

The extension for two years is due, in all probability, to the belief that federal aid has made certain states recognize that they are lame ducks and should have federal assistance for two years more. Meantime the self-respecting states will continue to help carry those which receive the subsidy.—*Boston M. and S. J.*

RECENT DEVELOPMENTS IN PERNICIOUS ANEMIA, WITH SPECIAL REFERENCE TO THE BLOOD SERUM

By ARTHUR E. MARK *

DISCUSSION by J. Marion Read, San Francisco; William H. Leake, Los Angeles; D. Schuyler Pulford, Woodland.

THE determination of the possible presence of any site of lowered resistance or even of infection is of vital importance in the study of pernicious anemia. This may often involve extensive examination of other members of the family as well as the patient. A focus of infection, be it ever so small, always should be removed, and especially if there be any familial tendency to disease. Among such foci devitalized teeth are of major importance in the diagnosis and treatment of pernicious anemia.

While it has been known for many years that pernicious anemia is accompanied by an achlorhydria, it is only in the last few years that special and deserved attention has been given achlorhydria as a forerunner of this disease. Most authors believe that if hydrochloric acid is present at any time a diagnosis of pernicious anemia is open to great question. The absence of hydrochloric acid is of diagnostic importance only when it is a true and permanent achlorhydria. The subcutaneous injection of 1 cc. of a 1-1000 solution of histamine hydrochloride, as brought out by Gompertz and Vorhaus,¹ enables us to make this differential diagnosis. Hurst² states that of 579 cases of pernicious anemia reported by various physicians, only ten showed hydrochloric acid on gastric analysis. In twenty-four cases of subacute combined degeneration of the cord Hurst³ reports an achlorhydria in all, and quotes others as obtaining similar findings. The common association of subacute combined degeneration and pernicious anemia has led to the belief that they are manifestations of the same cause.

Hearst, quoted by Sheard,⁴ reports a collection of twelve cases in which achlorhydria was known to have preceded the onset of pernicious anemia from one to twelve years. He expressed the opinion that achlorhydria almost invariably constitutes a predisposing cause. Knott⁵ has shown that free hydrochloric acid in a strength less than that found in the average normal stomach is sufficient to destroy many forms of bacteria, especially streptococci. Practically all patients with pernicious anemia or subacute combined sclerosis have evidence of pyorrhea or abscessed teeth. With the above possibilities in mind, Hurst's⁶ recommendation that all patients not showing hydrochloric acid should be given it throughout life, is a good one. However, from the point of view

of diagnosis it should be remembered that hydrochloric acid may be absent in the normal individual, about 4 per cent, according to Bennett.⁷

Peabody⁸ suggested that phagocytosis, which is increased in pernicious anemia, may play a rôle in the production of the anemia. By injection of the B. Welchii, Cornell⁹ has experimentally produced an anemia resembling pernicious anemia, but lacking in certain features such as achlorhydria and the tendency to remissions. He found this bacillus constantly present in greater numbers than normal in the stools of patients with pernicious anemia. The diagnosis of pernicious anemia is materially aided by its hemolytic tendencies evidenced by the lemon-yellow color of the skin; the yellow color of the blood serum, which will be referred to later; the anemia, the increased icterus index; and the Van den Bergh test. The latter two tests are so closely related to the color of the blood serum that they will be discussed with it.

Occasionally a patient with pernicious anemia at no time presents evidence of hemolysis, including periods of remission, thus negating the diagnostic value of this test and thereby increasing the diagnostic difficulties. Instead of the typical and almost diagnostic lemon-yellow tinge of the skin there may be a marked whitish pallor. Here other findings, such as high blood color index; achlorhydria; sore tongue; associated subacute combined sclerosis; the presence of macrocytes and megaloblasts; increased volume index; as well as clinical evidence, such as marked asthenia, but with fair preservation of body weight, enlarged spleen, etc., should be sought.

In speaking of the blood picture Hurst¹⁰ states that the microcytes, poikilocytosis, micro- and normoblasts, polychromasia, and punctate basophilia are due to the normal reaction of the bone marrow to any form of anemia.

In 144 patients with severe secondary anemia, hemoglobin 30 or below, I¹¹ found the above to be very true and was convinced that the blood picture, with the exception of high color index and the occurrence of megaloblasts, often presented all the findings which one could easily interpret as being due to pernicious anemia. Of my 144 patients only three had megaloblasts, two of whom had anemias of unknown causes.

Ten patients presented a color index of 0.8 or above, of whom four had a color index of 0.9. Only one patient had a color index above 1, this being a patient with gastric and osseous syphilis and in whom the possibility of pernicious anemia could not be ruled out.

Accurately determined color indexes, which means special care in the hemoglobin estimation with a proper scale, has a distinct diagnostic value. Its persistence around 1 or above, is almost certainly diagnostic of pernicious anemia. It should be understood, however, that at times a patient with pernicious anemia may have a low color index. I have observed this to be so in a number of patients with this disease. Hurst¹² states that the color index is often under 1. He also lays great stress on the average increase in the size of the red cells and the occasional presence of megaloblasts, and states that they are the direct result of a specific toxin on the

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bone marrow. The work of Bence-Jones¹³ has shown conclusively that the increase in the average size of the red blood corpuscles is the one constant characteristic diagnostic feature of the blood, and that it may occur alone in the early stages of the disease. However, it may occur in sprue and both-ricephalialis.

Capps, quoted by Haden¹⁴ (1903), introduced the term "volume index" to indicate the volume of the average red cell relative to normal. It is calculated by dividing the volume of packed red cells in percentage of normal by the number of red cells in percentage of normal. Haden concludes that in pernicious anemia the volume index is always greater than 1.00, and when associated with an achlorhydria is practically pathognomonic of pernicious anemia. This point, however, is open to question.

One of the most constant symptoms, and probably the most diagnostic, is the history of recurring sore tongue, which may vary in appearance from that of perfect health to the appearance of raw beef. When actual changes are present they are usually characteristic. Most patients show smoothness or baldness of the tongue, usually occurring in patches, associated with definite pallor and at times atrophy. In 150 cases, Hunter, quoted by Sheard,¹⁵ records the presence of glossitis as an invariably constant feature. Hurst¹⁶ has seen one fatality without sore tongue ever having been present. One hundred and fifty cases at Johns Hopkins Hospital¹⁷ showed typically smooth and atrophic changes in 63.8 per cent. In two of Schauman's¹⁸ patients the glossitis preceded the discovery of the anemia by five and ten years respectively. One of my patients had a sore tongue two years prior to the onset of the disease.

Glossitis is a very troublesome symptom and unless allayed in some way interferes greatly with ability to take the necessary food. It has been the author's experience that it is most effectively treated with 10 per cent silver nitrate. Hydrochloric acid should be given in large doses, as recommended by Hurst¹⁹ unless the tongue becomes highly irritated. Ileostomy, as reported by Dixon, Burns, and Giffin,²⁰ results in the disappearance of glossitis, icteroid tinge, and the abatement of paresthesias.

As already stated, subacute combined degeneration of the cord is a common accompaniment of pernicious anemia. According to Woltman,²¹ 80.6 per cent of patients with pernicious anemia develop this condition. From a diagnostic standpoint it is very important. "It occurs to me," says Woltman,²² quoted by Riggs, "that patients may die of neurologic changes without ever developing anemia, and yet have the same disease fundamentally that we refer to as pernicious anemia." As early as 1913 Riggs²³ emphasized the association between the latter and its neurological manifestations.

Patients with nervous changes complain of paresthesias and numbness in the extremities. The cardinal findings are impaired or absent vibration sense with marked impairment of the joint sense. These tests, so easily elicited, are frequently overlooked and left for the neurologist to discover.

The tests which are based on hemolysis, as before stated, are the icterus index, the Van den Bergh, and the color of the blood serum. It is supposed

that the color of the serum in fasting individuals is almost entirely due to the presence of bilirubin. There exists normally a small amount of bilirubin in the blood serum. The generally accepted opinion is that this pigment is derived as an end product from hemoglobin liberated in the process of cell destruction.

The normal yellow color is dependent upon the normal destruction of red cells. Ashby²⁴ has shown that a red blood cell may live as long as one hundred days. The average life of a normal cell, however, is about thirty-five days, which indicates a constant supply as existing for this purpose. Many other factors may influence the color of the serum, such as an increased carbohydrate intake, as well as certain foods. In infants Hess and Myers,²⁵ quoted by Bernheim,²⁵ have shown that after the ingestion of eggs, oranges, and chlorophyll containing vegetables, the yellow color of the serum is deeper than normal. Carotin and xanthophyll are the substances contained in the foods which produce this effect. Carrots definitely increase the color. The most important source, as before stated, however, is the hemoglobin.

Hemolytic diseases, such as pernicious anemia, hemolytic icterus, malaria, typhoid, as well as disturbances of the gall bladder, and diseases of the liver cause an increased intensity of the yellow color.

A serum paler than normal is due to a decrease in the normal bilirubin and occurs in patients with secondary anemia. The reason for this seems to be due to the reduced number of red cells in secondary anemia, naturally, resulting in a decrease in the bilirubin.

Brockbank²⁶ observed that the serum in pernicious anemia is always of a definite yellow color, varying in tint from that of a cowslip to the buttercup yellow of Canada balsam, whereas the serum of all other anemias is much paler and of straw color. He found the normal serum to be yellow, but not as intensely yellow as in pernicious anemia. The observation that the serum of patients with pernicious anemia shows a yellowish color had been made by others, but no series of cases had been collected. Panton,²⁷ Stengel,²⁸ and Sheard²⁹ refer to this yellowish color. In patients which I studied with Riggs,³⁰ results similar to those of Brockbank's were observed.

In an observation of several thousand blood serums at the Los Angeles County Hospital, taken at random, and thus embracing all types of conditions, I conclude:

1. The bilirubin content of the serum of normal individuals is subject to a considerable degree of variation as evidenced by the differing tints of yellow, there being by naked eye examination probably forty different tones. Many factors too numerous to mention affect the color. The normal serum varies from a very pale yellow, which might rarely be confused with the serum of a secondary anemia, to a fairly intense yellow, which might be confused with the serum of a pernicious anemia, or mild true jaundice. In approximately 5 per cent of normal sera confusion as to the latter possibility may exist. A greenish tinge may be present. Determination of the wave length by spectroscopic examination

would show a variation of probably four times this number.

The determination of the icterus index can be foretold with a fair degree of accuracy by naked eye examination of the serum. For the determination of the icterus index Meulengracht's³¹ method, as modified by Gram, and by Bernhard and Maue,³² is simple and accurate. It is a method by which the depth of color of the serum may be expressed by a number. Bernheim³³ reports the normal range in her series as being between 4 and 6. De Witt Stetten³⁴ reports normal readings between 2.5 and 5.

In a number of my patients, interpreted as being free from frank jaundice, a deep yellow color of the serum with an icterus index up to 20 was found. This was especially true in patients with heart disease, hepatitis, chronic gall bladder disease with hepatitis, and certain diseases of the colon. Barrow and Armstrong³⁵ give a very thorough report of the icterus index. Their report shows the above condition to have a high index.

2. Patients with secondary anemia uniformly had a marked pallor of the serum, usually straw-colored and occasionally practically colorless. In general, the more severe the anemia the paler the serum. Fifty cases of secondary anemia due to at least twenty different causes, and being of a very mild to a severe type, showed these findings. The icterus index in ten varied between 2.5 and 6.

3. The occurrence of a cloudy serum is due to the fact that blood is drawn during the height of digestion, usually a half hour after meals.

4. Jaundice invariably gives a dark yellow to a brownish color serum which can be recognized as being due to the jaundice.

Bernheim³⁶ states that clinical icterus invariably exists when the icterus index is above 15, and is invariably absent when below 15. She states further that the zone of latent jaundice lies between 6 and 15.

5. In patients with pernicious anemia the serum is of a yellowish color, usually deeper than the ordinary normal, and usually of a golden yellow, however, subject to variations to a certain extent as the normal serum. During remissions the serum approaches the normal, and in fact may appear quite normal at the height of the disease. Increased hemolysis, such as is brought about by reactions from transfusions, causes a more intense color to develop. In two of a series of twenty patients the serum had a brownish color. None are of a pallor resembling that found in secondary anemia. Other diseases associated with hemolysis, as hemolytic icterus gave a similar coloration to the serum as that found in pernicious anemia.

The icterus index in the pernicious anemia patients varied between 6 and 14.

The Van den Bergh test is of great value in determining the presence of latent jaundice. It is also of value as an additional test in the diagnosis of pernicious anemia.

CONCLUSIONS

1. The almost constant achlorhydria in pernicious anemia, the frequent occurrence of this symptom over a period of years before the onset of pernicious

anemia, as well as the marked familial tendency in cases of achlorhydria, pernicious anemia, and subacute combined degeneration of the spinal cord, warrants our assuming that an absence of hydrochloric acid acts as a marked predisposing cause.

2. Deficiency or absence of gastric hydrochloric acid should be continuously met by giving it over long periods, even throughout life. This applies especially where a familial tendency exists.

3. An increased phagocytosis is present in patients with pernicious anemia.

4. B. Welchii are constantly observed in the stools of patients with this disease in greater numbers than normal.

5. Pernicious anemia is usually associated with evidence of hemolysis. During periods of remission hemolysis is absent. Occasionally a patient may at no time show evidence of hemolysis.

6. The important blood changes in pernicious anemia are the high color index, the presence of megaloblasts, and the increase in the average size of the red cells. Occasionally a patient with pernicious anemia may never show a high blood color index, but the volume index is always above 1.00, and is of great value in diagnosis.

7. A history of recurring sore tongue is of extreme importance, and especially where associated with baldness and atrophy it is almost pathognomonic. This may precede the anemia by years. Sore tongue is best treated with applications of 10 per cent silver nitrate. Ileostomy is followed by a disappearance of the glossitis, icteroid tinge, and the abatement of the paresthesias.

8. Evidence of subacute combined degeneration of the spinal cord is present in 80.6 per cent of patients with pernicious anemia. Subjectively paresthesias and numbness; and objectively impaired joint, and loss of vibration sense, are its diagnostic criteria.

9. The yellow color of the blood serum in pernicious anemia is due to its bilirubin content, probably an end product from hemoglobin in the process of cell destruction. Normal blood serum is also of a yellow color of as many as forty different tints, depending upon many factors which affect the bilirubin content.

10. Blood serum from patients with secondary anemia is always of a pale straw color, that from pernicious anemia is always of a definite yellow color, usually, but not invariably more intense than the serum from the average normal patient.

The icterus index is usually increased in patients with pernicious anemia, and always very low in patients with secondary anemia.

REFERENCES

1. Gompertz, Louis M., and Vorhaus, Martin G.: *Jour. of Lab. and Clinical Med.*, 1925, XI, 14-21.
- 2 and 3. Hurst, A. F.: *Brain*, *Jour. of Neurology*, Vol. XLVIII, August, 1925, 218-232.
4. Sheard, Arthur: *Pernicious Anemia and Aplastic Anemia*, New York, William Wood & Company.
5. Knott, F. A.: *Guy's Hosp. Rep.*, 1923, 73, 429.
6. See above, No. 2.
7. Bennett: *Guy's Hosp. Rep.*, 1921, LXXI, 286.
8. Peabody, Frances W., and Brown, G. O.: *The American Jour. of Pathology*, March, 1925, 169-183.
9. Cornell, Beaumont S.: *The Canadian Med. Association Journal*, Toronto, January, 1925.

10. See above, No. 2.
11. Mark, A. E.: A Study of Severe Secondary Anemia, Minn. Med., September, 1922.
12. Hurst, A. F.: British Med. Jour., January, 1924, I, 93-100.
13. Bence-Jones, C.: Ibid, 1924, 74, 10. Vide, also Hurst, A. F., Med. Essays and Addresses, London, 1924.
14. Haden, Russell L.: Med. Clinics of North America, January, 1924, 1097-1108.
15. See above, No. 4.
16. See above No. 12.
17. Levine and Ladd: Johns Hop. Hosp. Bull., 1921, XXXII, 254.
18. Shauman, quoted by Mustelin: Acta. Med. Scand., 1922, LVI, 411.
19. See above, No. 2.
20. Dixon, C. F.; Burns, J. G., and Giffin, H. Z.: Jour. Am. Med. Association, July 4, 1925, Vol. 85, 17-20.
21. Woltman, H. W.: Amer. Jour. Med. Sc., 1919.
22. Personal communication, quoted by Riggs. See below, No. 30.
23. Riggs, C. Eugene: Jour. Am. Med. Association, August 16, 1913.
24. Ashby, Winifred: Jour. Exper. Med., Vol. 29, 1919. Jour. Exper. Med., Vol. 34, 1921.
25. Hess and Myers, quoted by Bernheim. See below, No. 33.
26. Brookbank, E. M.: Brit. Med. Jour., July 22, 1922.
27. Panton, P. M.; Martland-Jones, H. G., and Rid-doch, George: Lancet, March 15, 1924, 529-533.
28. Stengel, A.: Jour. Iowa State Med. Soc., December, 1922.
29. See above, No. 4.
30. Riggs, C. Eugene: Minn. Med., July, 1924, 484-495.
31. Meulengracht, E., quoted by Bernheim: See below, No. 33.
32. Bernhard and Maue, quoted by Bernheim: See below, No. 33.
33. Bernheim, Alice R.: Jour. Am. Med. Assoc., January 26, 1924, Vol. 82, 291-295.
34. Stetten, De Witt: Annals of Surgery, August, 1922, Vol. LXXVI, 191-200.
35. Barrow, John V., and Armstrong, Eugene: The Am. Jour. of the Med. Sciences, October, 1925, No. 4, Vol. CLXX, 519-528.
36. Bernheim: See above, No. 33.

DISCUSSION

J. MARION READ, M.D. (1183 Flood Building, San Francisco)—The rôle played by achlorhydria in pernicious anemia has in recent years been recognized as such an important one that few clinicians are willing to make the diagnosis unless achlorhydria is proved to be a constant finding. Doctor Mark quotes Bennett to the effect that "hydrochloric acid may be absent in the normal individual." The presence of hydrochloric acid in the gastric secretion, as ascertained by present methods, is considered normal and, though individuals with achlorhydria may be symptomless, they cannot be classed as normal. The achlorhydria in such cases may be a "predisposing cause" the "forerunner of the disease" to which reference was made in the first part of the paper. If it should prove true that B. Welchii is an etiologic factor, according to the recently advanced theory, and the influence of achlorhydria on the growth of B. Welchii proven, then we must consider every individual with achlorhydria a possible future victim of pernicious anemia.

WILLIAM H. LEAKE, M.D. (1680 North Vine Street, Los Angeles)—Vanderhoof states that "there is good reason to believe that every person with true achylia gastrica is a potential case of either pernicious anemia or combined spinal sclerosis." He reports good results following the use of large doses of hydrochloric acid in seven patients with combined sclerosis of the spinal cord who at no time developed the blood picture of pernicious anemia. Although hydrochloric acid may be absent in about 4 per cent of normal individuals, according to Bennett, it is considered advisable to administer hydrochloric acid as a prophylactic measure in every case of achlorhydria. The dose is of great importance; at least one drachm of the official dilute hydrochloric acid, well

diluted in buttermilk, lemonade, iced tea, or water must be given with each meal. An additional dose of one-half drachm is sometimes given half an hour after meals.

Although the color of the blood serum is of considerable value in the diagnosis of pernicious anemia, Doctor Mark has shown that it is subject to variation. This must be taken into consideration when colorimetric determinations are made.

D. SCHUYLER PULFORD, M.D. (Woodland Clinic, Woodland, California)—Doctor Mark's resumé of the present status of the diagnosis of idiopathic pernicious anemia and the report of his extensive observations, particularly of the serums in such cases, deserves weighty attention and should stimulate clinicians to further its value by recording similar observations. This would necessitate an occasional visit of a doctor to a laboratory which in itself would not be a bad thing.

The changes in the formed elements of the blood seen in pernicious anemia are simulated by those of several other diseases. Therefore the variation in certain indices expressing the relation between the hemoglobin and volume and number of red blood cells are more important in the diagnoses of anemias. While we may suspect pernicious anemia from the clinical findings, the actual diagnosis must necessarily be made from the above studies with the addition of a gastric analysis.

While there are exceptions to the rule that achlorhydria is always present in pernicious anemia and while certain patients, definitely proved to have pernicious anemia, may have color indices lower than 1 and vice versa, nevertheless achlorhydria and a color index greater than 1 are seldom, if ever, seen together in any diseases but pernicious anemia.

I would like to emphasize the point that the volume index is more consistently high in pernicious anemia and a more reliable test than the color index of the blood. It is also interesting to note that this test, as called attention to by Haden and others, shows that the so-called hyperchromemia is a misnomer, as the increased color index and volume index are not due to an increased amount of hemoglobin in the cells, but to an actual increase in volume of the individual cell itself.

DOCTOR MARK (closing)—The discussions, as well as my paper have brought out the marked importance of achlorhydria.

I agree with Read that an achlorhydria should never be considered normal. As brought out in my paper, when it is found in an individual, the latter should receive hydrochloric acid throughout his life. Small doses of hydrochloric acid are inadequate. Doses such as recommended by Leake should be given.

The diagnosis of pernicious anemia is in occasional cases difficult, and in this class of cases especially the advantage of many tests, as brought out in my paper, is self-evident. Pulford has stressed the importance of the volume index from a diagnostic standpoint. It is unfortunate that it is not utilized more frequently, as it is unquestionably our most valuable laboratory test in the diagnosis of pernicious anemia.

Dr. William Charles White, pathologist of the United States Public Health Service, finds soft coal smoke in the air to be probably one of the greatest pneumonia factors in American cities. Thus Pittsburgh has the highest constant pneumonia rate of any community in the world. Analyzing the pneumonia death rate of the city by wards, White finds that the denser the smoke content of the air the higher is the pneumonia death rate. It would seem, he thinks, that smoke has a tremendous influence on acute lung diseases.

These are significant findings in which many communities other than Pittsburgh should now find much to interest him, in view of the increased descent upon many cities of soft coal smoke, and of smoke derived from the burning of oil.—*Medical Times*.

The mother was ill in a home where a radio had recently been installed. The doctor came, and small Emily looked on wonderingly as he used the stethoscope. "What station is he trying to get, mother?" she asked, when she could no longer contain her curiosity.—*Capper's Weekly*.

RESTORATION OF THE AURICLE

By J. PAUL DE RIVER *

IN the realm of surgical science there is nothing more interesting than the history of plastic surgery. In remote times it was used to remedy the ravages of disease and repair disfigurements resulting from injuries. The records of Indian and Egyptian surgical art confirm its antiquity. The branch that probably antedates all others is rhinoplasty. While we cannot fix with certainty the period in which it was first practiced, we may be reasonably sure it was developed in India or ancient Egypt where it was a common practice among certain tribesmen to cut off or mutilate the noses and ears of their captives, and also of those guilty of marital infidelity.

References to restorative surgery are found in the Ebers papyrus, the hermetic book on medicine of ancient Egypt, believed to have been written in 1552 B. C., and in the hieratic writings of unknown authorship. The Roman Hippocrates, Celsus, who lived during the reign of Augustus Tiberius, described the restoration of the nose, ear, and lips by the use of neighboring skin. In 1597 the work of Gaspar Taliacotius, entitled "De curtorum chirurgia per insitionem" and published in Venice, described operations for repairing the lips and ears, and restoring the nose by utilizing the skin from the arm. The bibliographic records of plastic surgery are abundant with material contributed by authors throughout the world, including the American surgeons' noteworthy share.

Although the subdivisions of this art have multi-

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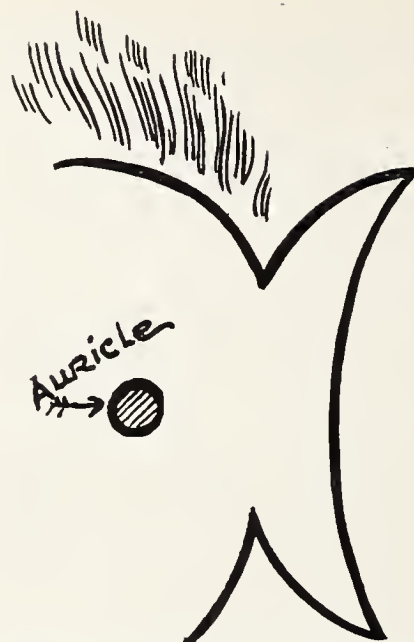


Fig. I—Szymanowski's Method.

plied as various organs or parts have become involved, the fundamental principles underlying all plastic operations seem to have changed but little, and those now utilized are largely the result of experience gained in the World War. A more thorough understanding of sepsis and asepsis, the control of wound infection, the conservation of tissue and certain mechanical devices have aided the surgeon in carrying out in detail the remedial defects in heretofore nonaccessible regions of the body.

Time has solved many surgical problems and clarified certain theories that have been misunderstood and misquoted in some of our textbooks. Due to the many and various wounds and disfigurements encountered in the World War, a diversity of operations were tried. Many of these fell by the wayside although they had been advocated as the proper procedure. Through this wealth of material a greater knowledge of plastic surgery has been gained, thus placing it on a fairly stable basis. The older methods that have proved worthless have been relegated to the surgical junk heap. This does not mean that a plastic millenium has been reached, for, as in all other branches of science, there is much yet to be learned. Only by practical experience and ingenuity can the remaining obstacles be overcome.

In dealing with the subject of otoplasty I reviewed twenty-one textbooks on surgery. In only three was any reference made to it. Textbooks written since the World War gave very brief descriptions of the surgical procedure recommended. It is hoped that this article will stimulate others in the art of otoplasty. There is much to be done, excluding the operations for cosmetic purposes. The loss of an ear is a gross disfigurement, at times reducing the unfortunate to social ostracism. It is a distinct vocational handicap in many gainful occupations.

The classical operation, as given in the textbooks, is that of Szymanowski's. He advises utilizing the skin posteriorly to the auditory canal. (See illustration No. 1.) The flap is outlined, dissected up and doubled upon itself posteriorly. It is brought forward and placed in the desired position, then sutured through and through that the raw surfaces



Fig. 2

Fig. 3

Fig. 4

will heal together. The denuded area back of the newly formed ear should be skin grafted before healing can be expected.

Detached, full-thickness grafts were formerly used, but due to the lack of blood supply they have not always proved successful. Skin grafting of the granulating raw surface may be handled with more assurance of success if the tube pedicle flap from the side of the neck is used, and the pedicle allowed to remain attached to the neck just below and posteriorly to the angle of the jaw. In this manner sufficient skin can be readily removed from the posterior triangle of the neck and swung up into place to cover the denuded area. The graft carries an adequate blood supply which assures its vitality. The neck wound is undermined and its edges closed with dermal and relaxation sutures of silkworm gut. At the end of ten days, or after circulation has been established, the pedicle is severed at its base or lower end. A small portion of the tube is split; one end is attached to the anterior superior end of the newly formed ear, after Szymanowski's operation. The reattached proximal end of the tube is allowed to adhere in its new position. The pedicle is again severed at its base and partially split throughout its length. The split or under surface

of the tube is sutured to the original postauricular flap, forming the helix. The lower end of the tube is sutured to a prepared area, posteriorly and inferiorly to the auditory meatus, and serves as the lobule of the newly formed ear.

This method provides a covering of skin to the original raw surface behind the ear, and helps in the actual formation. If carefully followed we are able to obtain a fairly good-looking ear, with helix, antehelix and lobule. Provided the middle and internal ears are intact, it is surprising to note the increase of hearing, for the newly formed pinna aids materially in conducting sound waves to the middle ear.

The principle of tubing the pedicle of a flap has shed new light on how to deal with tissue loss, whether the result of trauma or disease causes. Large areas denuded of skin may be repaired. By means of the so-called caterpillar method, which I have described, the graft is assured an adequate blood supply the source and direction changing each time the base of the flap becomes the free end. The chief bugbear of the plastic surgeon has been the nourishment of the graft. Its viability has been his chief concern. Failure often resulted because of an insufficient blood supply. However, this has been



Fig. 5

Fig. 6

Fig. 7



Fig. 8

Fig. 9

largely overcome by the tube flap, for in most cases it can be fashioned to carry its own nourishment. And when based on the face or upper portion of the neck we may be almost certain of its viability, provided the tube is not too long.

CASE—H. F., white male, aged 51, single, merchant seaman. Family and past history negative. History of present condition: September 20, 1924, patient was struck by an automobile and dragged for several yards, resulting in the loss of his right ear and an injury to his right arm. The ear was picked up, but no attempt was made to restore it.

I examined the patient some time later and found a complete loss of right pinna, with a marked reduction of hearing on the right side. The middle, external and internal ears were found to be functioning.

Operation: October 20, 1925. Operation performed under general anesthetic. The postauricular flap method of Szymanowski's was used. The denuded surface was covered with skin from the posterior triangle, right side of neck, after the tube-flap method. The tube was based at the angle of the right jaw, and the graft sutured in place with interrupted fine dermal sutures. The neck wound edges were undercut and closed with fine dermal sutures and reinforced with silkworm gut. A light gauze dressing was applied.

October 31, 1925—The tube pedicle was detached from its base; the inferior free end split and its surface sutured to the upper end of the postauricular flap and side of the head. Wound was closed with dermal sutures and dressing applied.

November 16, 1925—Inferior end of tube pedicle was detached from its bed, partly split and its surface sutured to the posterior surface with dermal sutures. The free end of the tube was sutured to the raw surface of the face just beneath the auditory meatus.

November 28, 1925—Results satisfactory. Hearing improved. Patient discharged from the hospital.

December 20, 1925—Patient reported for observation. He was greatly pleased and was again following his occupation as a merchant seaman.

REFERENCES

- Keen: Surgery, 1912, Vol. 5.
 Dennis: System of Surgery, 1895, Vol. 2.
 Bryant: System of Surgery, 1905, Vol. 2.
 Ashurst: International Encyclopedia of Surgery, 1888, Vol. 1.
 Jacobson: Operative Surgery, 1915, Vol. 1.
 McGrath: Operative Surgery, 1905.
 Pels-Leudsen: Surgical Operations, 1912.
 Bickham: Operative Surgery, 1924, Vol. 3.
 Binnie: Operative Surgery, 1912.
 Jacobsen and Rowland: Operations of Surgery, 1908.
 Stephen Smith: Operative Surgery, 1887.

- Treves: Manual of Operative Surgery, 1892, Vol. 2.
 Howard: Practice of Surgery, 1914.
 Dacosta: Modern Surgery, ninth edition, 1925.
 Mott: Operative Surgery, 1847.
 Gross: System of Surgery, 1882, Vols. 1 and 2.
 Fowler: Treatise on Surgery, 1906.
 *Kolle: Plastic and Cosmetic Surgery, 1911.
 *Gillies: Plastic Surgery of the Face, 1924.
 *Pickerill: Facial Surgery, 1924.

* Texts describing restoration of the auricle.

Recent Observations on Scarlet Fever—The new method of treating scarlet fever patients by the administration of a suitable antitoxin has presented a problem in relation to the development of protection against the disease. A study in the New Haven Hospital of late immunity developed by former patients who were treated with scarlet fever antitoxin and those who did not receive antitoxin indicates that there may be some disadvantage in the therapeutic dosage with the antitoxin in respect to the establishment of a more lasting immunity. It may turn out that the combating of the actual disease decreases the security that an attack of scarlet fever almost invariably promoted in former days. Nicholls at Yale has demonstrated the presence of *Streptococcus scarlatinae* in a proportion of persons who exhibited features of infection with hemolytic streptococci without evidences of clinical scarlet fever, thus showing that an existing immunity to the soluble toxin of *Streptococcus scarlatinae* does not prevent the development of local pyogenic infections with this organism. Persons so infected may serve as foci for the spread of scarlet fever. Trask of Yale urges that a large excess of antitoxin be used for therapeutic purposes to obtain consistently satisfactory results. In late cases with faded rash, little or no benefit may be expected from antitoxin therapy. Septic complications may continue when the specific toxemia and its attendant rash have terminated, thus suggesting that *Streptococcus scarlatinae* may have two different modes of attack and thus result in different clinical pictures of the disease.—*Jour. A. M. A.*, March 26, 1927, p. 1004.

Does Infant-Welfare Work Preserve the Unfit?—

It has often been said that the methods of preventive medicine which have so greatly decreased the deaths of infants under 1 year of age, only preserve babies to die in later childhood. Dr. I. S. Falk of the department of hygiene and bacteriology of the University of Chicago, after a study of the deaths of white infants and children up to the age of 10 years during a quarter of a century period in Chicago, finds, on the contrary, that the death rates for the subsequent years are also lower.

Length of years doesn't amount to much without health; so it is better to aspire to the maintenance of health rather than to longevity.—*Ohio Health News*.

CLINICAL NOTES, CASE REPORTS AND NEW INSTRUMENTS

ACUTE NECROSIS OF LIVER

CASE REPORT

By ALFRED C. REED, M. D., AND I. W. THORNE, M. D.
San Francisco

CASE—Mrs. M. S., American housewife, widowed, aged 65, first sought medical aid on November 3, 1926, complaining of deep jaundice and some weakness.

History—The patient was an only child and had herself no children. Her husband died nine years ago from tuberculosis. She had typhoid at 20 and pneumonia three times, the last being in 1905. In her early married life she had both tubes and presumably both ovaries and appendix removed. Her menses continued for five years thereafter. She has had occasional colds and sore throat during her life, never any rheumatic disturbance. One year ago she suffered from palpitation and the blood pressure was found to be 240. By attention to diet this was reduced to 180. Until the present illness her appetite was always good. She suffered from constipation all her life, but no hemorrhoids or soreness ever followed. She frequently had a sensation of fullness after eating and often overindulged in sweets. Nycturia, once or twice, was present for several years past. Her maximum weight five years ago was 157. In the past year it has dropped to 135.

Present Illness—For several years past the patient has had indefinite indigestion and discomfort in the region of the liver, apparently associated with her constipation. This has been more noticeable in the past year, with periods of fullness, flatulence and discomfort in the upper right abdomen. There was no shoulder pain or other radiation and no jaundice preceding the present. Two weeks ago she had a sudden severe pain across the entire upper abdomen, of such severity as to make her short of breath, and continuing with little relief for two days. There was some nausea but no vomiting. This pain was not like the discomfort of the preceding year. The temperature was 101 F. on the first night of the pain and then declined in a few days to remain normal. After the general pain ceased she felt very weak and had occasional gripping pains of less intensity. On the morning of the fourth day she awoke to find herself deeply jaundiced. Since then the jaundice has varied little if any, and the stools have been constantly white or clay-colored. After a full dose of calomel there was a very slight darkening of the stools which then again became and remained typically acholic.

Examination showed a woman looking rather under her age, deeply jaundiced, rather stocky in build, and quite obese. Blood pressure (Mercer auscultatory) was 204/114. Pulse 80, regular, fair quality. The liver was a finger's breadth below the right costal margin, with a smooth, very tender edge. Otherwise the examination was not remarkable.

The blood count was entirely normal, as follows: red cells, 4,580,000; white cells, 8000; hemoglobin (Dare) 86 per cent; polynuclear cells, 67 per cent; large mononuclears, 5 per cent; lymphocytes, 25 per cent; and transitional cells, 3 per cent. The urine was alkaline, gravity of 1020, trace of albumin, no sugar, acetone or diacetic acid, and loaded with bile. The sediment was not abnormal.

The patient was able to come to the office on the first two days she was seen, when it was supposed that she was the victim of an ordinary type of acute catarrhal jaundice. She was given laxatives, bile salts and digestive ferments, and asked to return in three days. Five days later she was unable to leave her bed and was seen

at home, too weak to get about and with persistent nausea and some vomiting. She refused to enter the hospital and it was not possible to make studies of blood chemistry. Finally as the vomiting increased and became intractable, she consented to be moved to the hospital. She had no pain, constipation was obstinate, and the jaundice deepened to a greenish tint.

It was felt that a common duct obstruction was at fault, and laparotomy was done (by I. W. T.) after eighteen hours' preparation with glucose and saline by rectum. Nothing was retained by mouth, and gastric lavage gave no relief.

Preoperative examination was not entirely satisfactory owing to the amount of fat and the rigidity of the abdominal muscles. It was decided that, in view of the jaundice and obstructive symptoms, an exploration of the gall bladder and ducts should be made. The following morning a right rectus incision extending from the border of the ribs to an inch below the umbilicus was made, and when the peritoneum was opened a very much distended gall bladder presented itself. The walls of the gall bladder were so extremely thin and friable that on grasping it with forceps in order to place the trocar to empty it quite a hole was torn. The gall bladder was not grasped, however, until gauze pads had been packed into the kidney pouch and about the gall bladder and duct region so that there was no soiling of the peritoneum by this accident, though a large quantity of deeply bile-stained mucus escaped. It was found necessary to empty the gall bladder through this rent with sponges. After completely collapsing the gall bladder the hepatic and common duct regions were explored for stone. No evidence of stone being found a drain was placed in the gall bladder after the head of the pancreas had been examined and found not hardened nor enlarged, and the abdomen was closed, with the exception of the drainage aperture. The under surface of the liver, which was seen during these maneuvers, did not particularly attract our attention, but in exploring the ducts no nodules nor bosses were felt on the under surface of the liver and we felt that in the absence of stone or any mechanical obstruction in the ducts that a cholangitis or hepatitis was the probable cause of the intense jaundice, which steadily increased until death which occurred forty-eight hours after the operation. At least a liter of bile drained away after the placing of the drain, in the forty-eight hours preceding death.

Autopsy—A partial post mortem examination was allowed. There was no free fluid in the abdominal cavity. The gall bladder drainage was free. All organs were tinged with bile. The liver was greatly reduced in size, the left lobe measuring four inches in diameter and the right lobe six inches in diameter. The cut surface showed fibrotic changes, hyaline in appearance. The gall bladder was large, indicating previous distention. There was no obstruction of the duct and no stone anywhere in the bile drainage system. The bile apparently flowed freely into the duodenum. The pancreas was grossly normal. The spleen was somewhat diminished in size. The kidneys were enlarged, the capsules stripping with difficulty, and the cut surfaces showed evidence of cloudy degeneration. Sections of the liver showed moderate amounts of fibrosis. The hepatic cells had lost their integrity and were in places confluent with hyaline changes. A small amount of fatty degeneration was present.

Microscopic examination by Dr. Ernest Hall showed the following: "Sections reveal a marked destruction of the liver tissue in and about the centers of the lobules. In places some of the lobules are completely destroyed, while few if any are wholly intact. In the destroyed areas there is a small amount of fat, the liver cells have disappeared completely and the connective tissue frame has collapsed. The latter shows diffuse early proliferation of connective tissue, contains polymorphonuclears, leucocytes, large lymphocytes, and many large phagocytes laden with brown pigment in the form of small granules. The portal spaces contain numerous proliferating 'bile-ducts' and are heavily infiltrated with round cells. There is little degeneration of the liver cells about the edges of the destroyed areas. The remaining liver tissue is in the form of spherical hyperplastic nodules of microscopic size. The liver cells in these areas are well preserved, many of the nuclei are large apparently in the early stages of

mitosis. In small scattered areas the liver cells are bile-stained and the canaliculi contain casts of bile.

Atrophy of liver, yellow, late."

DISCUSSION

Our conception of acute yellow atrophy of the liver is of an acute necrosis of variable causation which may be the result of a specific intense toxemia or may be the end results of a so-called ordinary catarrhal jaundice, the necrosis tending to start and be maximal at the cell nuclei and to spread from the radicles of the portal vein. Jaundice is most simply classified as pure obstructive, toxic which is really also obstructive, and hemolytic. Various combinations are of course seen.

In a review of epidemic hemorrhagic jaundice seen at Bellevue Hospital, Simmers (*Journal A. M. A.*, April 24, 1920), described the chief features as the absence of mental symptoms, clay-colored stools, pain and tenderness in the liver region, usually vomiting and nausea, fever inconstant and only from intercurrent infections, high mortality, duration from a few days to three weeks, depending on the quantity of liver necrosis. He noted that those under 50 years of age developed acute yellow atrophy with violent mental symptoms, while over that age the patients were stuporous. He considered that hemorrhages and epidemicity should suggest a nonobstructive jaundice and contraindicate operation. In our case many of these features were noticeable, but there were no hemorrhages and it was an isolated case.

The criteria for catarrhal jaundice have been set as a sudden onset, benign course and demonstrated absence of calculi. This must be revised to a conception of liver necrosis as a concomitant of catarrhal jaundice which itself is the result of many causes which differ widely in nature but are graded by the relative intensity and duration of the toxemia, which in turn measures the amount of necrosis. The benignity of the course will then depend not on an etiologic type but on the quantity of liver necrosis.

SUMMARY

The special features in this case are the age of the patient, 65 years, and the evidence from history of preceding liver damage. Except at the onset the course was afebrile and, with its sudden onset and duration, might have been considered some form of catarrhal jaundice. The clinical course followed closely the actual destruction of liver substance from the first examination with an enlarged liver to the post mortem demonstration of a very small liver. Intractable vomiting without pain and with a deepening greenish jaundice and no active mental symptoms represented the course after the first days. At the last, coma supervened. Severe jaundice and acholic stools were associated with no evidence at operation of common duct obstruction and with a large bile-distended gall bladder. We have no explanation for this except the suggestion of a spasm of the common duct or its outlet. Attention has been called to a similar condition by Kemperer, Killian, and Heyd. (*Arch. Pathology and Lab. Med.*, November, 1926.) The history and course of this case strongly suggest the probability of intestinal toxin carried by the portal vein to the liver.

Unfortunately it was not possible at the partial autopsy to secure full microscopic examination of the small intestine with reference to inflammatory damage.

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COMPLETE RECOVERY FROM LUNG ABSCESS FOLLOWING REMOVAL OF A FOREIGN BODY FROM THE BRONCHUS

CASE REPORT

By GARNETT CHENEY, M. D., *San Francisco*
(From the Department of Medicine, Stanford Medical School)

THE importance of employing all possible measures in making an accurate diagnosis in chronic pulmonary infections is well borne out by the case here reported. It is a striking example of the group of cases described by Jackson,¹ where removal of a foreign body which has caused bronchial obstruction resulting in lung suppuration has nearly always produced a complete cure. Although the actual foreign body was not identified in this patient, the onset after operation under ether for nasal polyps and her remarkable recovery leave little doubt as to the nature of her illness.

CASE—Mrs. L. E., 39, widowed, entered Lane Hospital November 27, 1926, complaining of a productive cough. Her family and marital history were irrelevant and her habits good. She had had measles in childhood and influenza in 1919, 1922, and in February, 1926. Following the last attack of influenza she was troubled with sneezing spells, which were said to be due to nasal polyps. Eight months before hospital entry she had several polyps removed under ether anesthesia. A few days later she began to have a dry cough and attacks she described as asthma characterized by great difficulty in expiration. Two months later her cough became more severe, especially in the mornings, and she began to raise large quantities of thick yellow, blood-streaked sputum, and suffered from chills, fever, and night sweats. She entered a hospital and remained five weeks, with the additional symptoms of hoarseness and severe pain at the base of the right lung. She was told she had pleurisy and was dismissed unimproved except for cessation of the pain. Since then two doctors are said to have told her that she must have an operation on her lung to relieve her condition. Unwilling to submit to operation, and having spent all her money, she entered Stanford Medical Clinic. She had lost thirty pounds in weight since the onset of her cough.

Physical examination showed a well-developed poorly nourished nervous woman coughing and expectorating almost continuously. Her temperature was 99.6 degrees, pulse 92, respirations 22. Eyes, ears, nose, throat and neck were not unusual. The chest showed limited movement of the right base. The right lung posteriorly below the midscapular region and in the axilla was dull, and there was an increase in tactile and vocal fremitus and a diminution of the breath sounds over this area, where fine moist rales were heard after coughing. The heart was not enlarged, the abdomen was normal, the reflexes were in order, and the blood pressure was 108/80. The fingers were not clubbed. Her sputum was gray, copious, mucopurulent, but not foul. No acid-fast bacilli were present. The blood showed 5,280,000 red blood corpuscles, 80 per cent hemoglobin, 21,900 white blood corpuscles, 72 per cent of which were polymorphonuclear leucocytes. The urine was clear and the blood Wassermann was negative. X-ray of the chest after lipiodol injection into the right lower bronchus showed a bronchiectasis of the right lower lobe, with a cavity, presumably an abscess. Bronchoscopy by Dr. Roy Nelson on the second day after

¹ Jackson, C.: *Surgery, Gynecology and Obstetrics*, 1926, 42, 305.

entry to the ward showed the second branch bronchus from the right main bronchus to be four-fifths occluded by a heavy mass of granulation tissue, and a dilated bronchial cavity beyond. The granulations were removed. They contained some calcareous plaques which failed to show any bone-like structure microscopically. The cavity was cleaned out.

The day after bronchoscopy she felt much better, and could breathe easily for the first time in eight months. Three days later, when she left the hospital, her temperature and pulse were normal, her cough less harassing, and her sputum much diminished. Cough and expectoration ceased entirely within one week. Two months after hospital entry she had gained twenty-six pounds and felt perfectly well, and was back at work. Slight dullness and diminished breath sounds were still present over the lower lobe of the right lung, but no rales were heard. X-rays of the chest at this time failed to demonstrate any abnormality of the previously affected area.

TOXIC REACTIONS FROM PHENOBARBITAL (LUMINAL)

REPORT OF TWO CASES

By HUGH J. BOLLINGER *

IN *The Journal of the American Medical Association*, February 26, 1927, Arnold S. Jackson, M. D., Madison, Wisconsin, reviewed the literature and reported six cases of luminal poisoning, making thirteen cases in all reported in literature. Out of about two hundred given luminal I have had two rather severe reactions.

CASE 1—March, 1925, Master G. B., age 5, suffering with a mild chorea was given luminal, grains $\frac{1}{4}$ b. i. d., also cod liver oil and Fowler's solution. The third day after beginning medication a generalized itching of the skin was noted, but no rash appeared. This child when a baby had a rather severe feeding eczema, following which the skin seemed sensitive to hives and itching from indiscretion in diet. From this knowledge, and the fact that Fowler's solution was being given, the conclusion was that the arsenic was causing the itching skin. Fowler's was stopped, but the itching continued. The child was kept in bed and given sun baths for one month. His chorea was improved greatly, so all medication was stopped and he was allowed up, and later about. In about six weeks the choreic movements of the hands returned and he was restless at night, so luminal, grains $\frac{1}{4}$ t. i. d., was given. In three days there appeared over the legs, arms, and trunk a rash which was pin-head in size, discrete, maculo-papular, red and itching; also the temperature rose to 100 F. The luminal was stopped and symptoms disappeared within five days. This child was given luminal again months later, and the itching rash and fever returned but stopped promptly on discontinuing the luminal.

CASE 2—Woman, 53 years, married, two grown children, consulted me February 7, 1927, because of dizzy spells, tingling in fingers, loss of elasticity of finger tips, and irregular heart beat. Blood pressure was 160-90 and hb. was 70. She was put on liquid blauds and quinin sulph. Her condition improved greatly, but on February 17 she complained of nervousness and sleeplessness. For this I prescribed luminal, grains $1\frac{1}{2}$ b. i. d. The second day she developed a generalized rash resembling measles. Luminal was stopped. Next day the temperature was 104, and the rash was generalized, confluent, and intensely itching. The skin was thickened, scarlet red and hot, resembling closely a generalized erysipelas. The fever lasted one day, and the rash one week. The skin then began to desquamate. By mistake she took another luminal, grains $1\frac{1}{2}$, and the rash reappeared with such intensity that the eyes were nearly swollen shut. There was great prostration, dizziness and some headache, no nausea, bowels regular, and appetite good. The second rash healed by desquamation ten days after its appearance.

In both these cases the symptoms of rash, itching, weak-

ness, and rise of temperature recurred a second time upon the giving of luminal, and receded promptly upon its discontinuance. This proves conclusively that both these patients were poisoned by luminal. Therefore, since luminal poisoning is fairly common, one should warn each patient when it is prescribed of possible reaction so that it may be promptly discontinued at the first appearance of symptoms.

In the last quarterly number of the *Journal of Neurology* Dr. R. D. Gillespie, a research scholar in mental diseases, writes on fatigue. To the ordinary man fatigue is the result of sustained labor or exertion. It is physiological and involves nothing abnormal. The condition to which Doctor Gillespie specially refers is a fatigue syndrome to which some people give the name neurasthenia, and of which an important symptom is "irritable weakness." According to Doctor Gillespie, the cause of this fatigue syndrome may be sought in five directions. The first may be found in the constitution of some people who have congenitally a weakness of the nervous functioning power. The second is an auto-intoxication, due frequently to gastrointestinal disturbance; but in some cases both the fatigue and the disturbance may have a common toxic origin. Overwork has been suggested as a third cause, but experimental production of prolonged weakness by work alone is lacking. Emotional causes should always be suspected. Dejerine writes that the real cause of the fatigue syndrome lies in the emotional equipment. Lastly, neurasthenic symptoms may develop as the result of sexual excess. The symptoms of the fatigue syndrome are brain fag, poor memory, lack of concentration, irritability of temper, increased reflexes, poor sleep, anorexia, and numerous aches and pains. Gillespie considers that the principal place in treatment must be assigned to psychotherapy. Graded exercises will increase tolerance and vital capacity. Hydrotherapy will improve vasomotor tone, and some medicines may prolong and increase the working power of muscles.—Editorial, *Canad. M. A. J.*

Recurrent iritis is now regarded by ophthalmologists as almost invariably due to metastases from a focal infection, and its radical cure as dependent on the removal of every possible focus. Two series of one hundred cases each have been reported during past years to the American Medical Association by Doctors Irons and Brown, in which careful study of each patient was made to determine the different sources of infection. In a recent report they have summarized the first fifty cases in which they have been able to obtain reports with reference to the influence of this removal of possible foci of infection on the recurrence of the iritis. In forty-three of these there had been no recurrence after a period of observation of from three to twelve years. In seven recurrence had taken place. In this small group the recurrence had been ascribed to either syphilis, gonorrhea, or tubercle. Of other sources of infection, the prostate must always be remembered. An infection from this source is probably more frequently nongonococcal than gonococcal. Another source of local infection suggested was intestinal infection by protozoa of various types. Effective treatment directed to the cure of this condition in a few cases had had, according to Doctor Mills of Los Angeles, encouraging results. The day is past when all cases of iritis were regarded as either syphilitic or rheumatic.—Editorial, *Canad. M. A. J.*

There are some popular misconceptions about leprosy. One is that it is hereditary. The fallacy of this has been demonstrated by removing children from leprosy parents immediately after birth. Under these conditions the children practically always remain free from this infection. There is additional evidence against hereditary infection. Another erroneous impression is that the disease is racial in its affiliations, and that the members of the dark and brown races are far more susceptible than whites. It is true that dark-skinned races do suffer most at the present time, but we must remember that there was a time in history when the white race suffered heavily and, given the same surroundings and the same opportunity for infection, there is reason to believe that all are about equally susceptible.—*Medical Times*.

- BEDSIDE MEDICINE FOR BEDSIDE DOCTORS -

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MINIMUM GROUP OF SYMPTOMS AND FINDINGS THAT WARRANT A DIAGNOSIS OF SYPHILIS

Harry E. Alderson*—It must be emphasized that an early (pre-Wassermann) diagnosis of syphilis is of paramount importance to make possible complete and early eradication of the disease. This can be accomplished only by means of darkfield examinations of material from suspicious sores. All genital sores, no matter how innocent or benign in appearance, should call for this examination, for often in lesions having none of the characteristics of a chancre the treponema pallidum is found. With a little experience one can make diagnoses by this means. One negative result should not be considered conclusive. Repeated examinations should be made over a period of a week or two. Often the sore has had some mercurial or other antiseptic applied by the patient. This increases the difficulty. In such cases aspiration of material from involved neighborhood lymph glands may reveal an abundant pure culture of treponemata pallidae. Or aspiration of fluid from beneath the floor of the suspected sore may be tried. This is accomplished with a small luer syringe and a very fine needle, pumping in and out a very small amount of normal salt solution. Material from the surface will contain various kinds of spirochaetes, but where the lesion is on the genitalia differentiation of the spirochaetes usually found from the treponema pallidum is easy. If the lesion is in or around the mouth, darkfield diagnosis is much more difficult, for the spirochaeta dentium which is found there resembles very closely the syphilis organism. This darkfield method is far more valuable than the use of stains or the india ink method, for it enables one to observe the movements of the spirochaetae, which are of very great importance in differential diagnosis. It enables one to initiate promptly intensive treatment. This is of paramount importance in early syphilis.

The Wassermann test, of course, should be made early and often, even where a positive darkfield diagnosis has been made. If diagnosis is made before it has become positive, proper therapy will keep it from ever developing and in favorable cases the disease may be eradicated within six months. However,

it is of extreme importance to check up by the Wassermann test at regular intervals for at least two years.

This complement fixation test when strongly positive is practically diagnostic; but it should always be considered in connection with other evidence. It is one of the most important positive symptoms, of course, but its absence should not outweigh positive clinical evidence. In very early lues, as already stated, it may be negative. In later lues it will vary from day to day, being completely or partly positive at times and completely negative at other times. As the disease tends to become localized in late lues, the Wassermann reaction is often negative. A positive Wassermann may be seen in yaws and in certain stages of scarletina. However, there are other criteria on which a differential diagnosis may be based. Bearing in mind these facts one must regard the complement fixation reaction as the most important single factor in the diagnosis of lues. One may discount a negative result, but a quadruple plus reaction cannot be ignored.

At the end of the first year of the disease (and earlier when indicated by symptoms) the cerebrospinal and cardiovascular systems should be investigated for possible involvement. Complete physical examinations should be made from time to time to check up on the conditions of different viscera. Lumbar puncture should be made in every case. There are several valuable laboratory procedures for the detection of lues of the cerebrospinal system—the Wassermann colloidal gold tests, cell counts, and the globulin and reaction of the spinal fluid.

For the detection of cardiovascular involvement, physical, including radiographic examinations should be carried out.

Modern facilities (autos, aerial mail, etc.) have made it possible for most everyone to avail himself of these essential laboratory aids to diagnosis. However, there are men here and there who may at times be compelled to rely upon clinical evidence. In such cases, however, it should be possible at some time or other to check up on each case by laboratory means. One must not get in the habit of relying too much on these aids, however. It is well always to keep one's mind fresh regarding clinical symptoms and lesions. It is important to remember that the primary incubation period (from time of exposure to appearance of primary sore) averages from eighteen to thirty-five days (in rare cases it has been observed as early as ten days and as late as seventy days). Also that the secondary incubation period (time from the appearance of the chancre to the onset of secondary symptoms) averages forty to fifty days, but that in exceptional cases it has been seen as early as twelve days and as late as 180 days. Syphilis is of such vital importance to the individual, the family and the community, that every effort should be made to establish the diagnosis early.

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Harry C. Coe *—It is not my purpose to advocate short cuts to the diagnosis of syphilis or to belittle the importance of symptoms not mentioned in this discussion, but rather to point out the more important symptoms and laboratory findings and to give their diagnostic value. There is no reason why the investigation of a case of syphilis should differ from that of any other disease. All the evidence bearing upon the condition should be obtained, and this can only be done through careful history, physical examination and indicated laboratory tests. This data may seem superfluous in some cases, but at times we need all the evidence obtainable in order to make a diagnosis, and when that time comes the data should be at hand.

Certain clinical symptoms and laboratory findings have equal importance in the diagnosis of syphilis. The value of these symptoms and laboratory finds will vary, however, in the different stages of the disease.

Any indurated genital ulcer may be a lesion of primary syphilis. The appearance of this lesion cannot be relied upon, and we must depend upon laboratory findings for a diagnosis in this stage of syphilis. A darkfield microscopic examination should be made for *treponema pallidum* in all cases presenting these suspicious ulcers. The Wassermann reaction is without diagnostic value at this time, as it is generally negative in the early primary stage.

When the secondary symptoms of syphilis have developed we can trust to clinical observation for diagnosis. Generalized macular, papular, or pustular lesions, mucous patches, adenopathy, and the remains of a chancre or the presence of its scar should be evidence enough to convince anyone. The diagnosis can always be confirmed by the Wassermann reaction in this stage of the disease, as it is invariably positive in secondary syphilis.

In latent syphilis there may or may not be visible signs and symptoms. If skin lesions are present they are usually quite easily recognized if one has in mind some of their principal characteristics. These lesions are classified as nodular, squamous or gummatous. The color is generally a dark red or a brownish red. They are asymmetrical, grouped and deep-seated, and have a tendency to form semicircular, kidney-shaped or serpiginous configurations. Subjective sensations are generally absent. Too much reliance cannot be placed in the Wassermann reaction at this time, as it is occasionally negative even in the presence of typical lesions.

In latent syphilis we may be unable to find symptoms, and our diagnosis again depends upon the laboratory findings. A repeatedly positive blood Wassermann or positive findings in the spinal fluid may be considered sufficient evidence for a diagnosis.

Every effort should be made, however, to find symptoms in these cases. A thorough physical examination should be made with special attention being given to the investigation of the cardiovascular and nervous systems, as the *treponema* are often localized in these tissues.

Donald Dyer Lum *—It is of the utmost importance that an early diagnosis of syphilis be made in the primary and secondary stages of the disease, both for the patient's sake and for the sake of those with whom he comes in contact, for it is largely at this time that infection is spread. A darkfield examination should be made of each genital sore. If this examination is not possible any hard indurated ulcer should be regarded as luetic and treated as such. One should not wait until the Wassermann becomes positive before instituting treatment. In the presence of a generalized macular or papular eruption with a history of a chancre four to seven weeks previously, mucous patches and adenopathy, a Wassermann should be taken and intensive treatment started at once without waiting for the report of the Wassermann. As a rule these patients fail to realize their highly contagious character, and the infectious element of the disease should be overcome as rapidly as possible.

In both clinic and private practice I have found patients who have been treated for weakly positive Wassermanns from an unreliable laboratory in the past, but at the time of examination gave an entirely negative history, physical examination and Wassermann. In all cases of this type I believe it essential to do a provocative Wassermann before decision is reached. If their Wassermann remains negative, and if they have had only very mild treatment in the past, as a few injections of arsphenamine or internal medication, we are justified in believing that the patients probably did not have syphilis. On the other hand if a patient without a history of infection, symptoms or physical signs has a four plus Wassermann by a reliable laboratory, we may safely make a diagnosis of syphilis.

Any patient with a negative Wassermann having vague indefinite symptoms in the presence of such outstanding physical findings as a perforated nasal septum not resulting from trauma, operation or infection, perforation of the hard palate or a history of typical gummata and their resulting scars, should have a careful study of his cardiovascular and nervous systems made, not omitting the very important examination of the spinal fluid.

In closing, I should emphasize the fact that I do not believe in overlooking the valuable laboratory aids that we possess, but that during the infectious stage of the disease we should not wait for their results. Cases of lues in which the disease has become localized, in which the positive Wassermann has disappeared, should not be diagnosed entirely on a laboratory test.

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Irwin C. Sutton *—An editorial invitation to discuss bedside methods in the diagnosis of syphilis suggests at once an outlining and listing of the diagnostic methods known as clinical rather than those inherent to the laboratory. This should include a thorough skin and mucous membrane survey, an eye, ear, nose, and throat examination, testing of the superficial and deep reflexes, and study of the viscera and cardiovascular system. This is exactly what is meant by the textbook phrase, "Search for other signs of syphilis."

The much abused therapeutic test is occasionally of the greatest value in the absence of positive serologic and in the presence of suggestive clinical findings or history. As my friend Samuel Ayres has shown, the therapeutic test should be the last test employed to cinch a diagnosis of syphilis. The phenomenon of Jarish-Herxheimer may be utilized to advantage in both early and late syphilis. Twelve to twenty-four hours after the injection of a small amount of arsphenamine there will usually occur an intensification of the lesion under observation; be it an early macular eruption, a late gummous lesion, or an indolent nodular eruption on the skin. This procedure is not to be recommended where an acute process is going on in an important and delicate structure such as the iris, the heart, or the central nervous system. The ensuing exacerbation may produce alarming symptoms and irreparable damage. The provocative Wassermann procedure had been shown by Stokes and O'Leary to increase the efficiency of diagnosis by about 20 per cent. This is properly carried out as follows: An injection of 0.2 gm. of arsphenamine or 0.35 gm. of neoarsphenamine is administered intravenously and blood specimens drawn after twelve and twenty-four hours and thereafter for six consecutive days. A spinal puncture is usually made after the third or fourth day.

I have purposely omitted reference to history taking, for unless an especially intensive study of the anamnesis with social estimation of the case and study of the family history is made, the history is worse than useless. Syphilis is an objective disease and the diagnosis must therefore be essentially objective; must rest on findings, not subjective symptoms. A patient with an indurated crescentic lesion on the palm with evidence of peripheral extension and central atrophy may be told he has syphilis; not asked whether or not he ever had a chancre. It is time for some of the clinical syphilology established by Ricord and developed by Fournier and Diefay to be more thoroughly appreciated by physicians and less reliance placed on the Wassermann-taking instinct.

G. David Kelker *—Since the prognosis of every case of syphilis depends almost entirely upon the

early and thorough administration of antisyphilitic treatment, and since the disease becomes progressively worse as the organism responsible is allowed to multiply within the body tissues, it is of the greatest importance that the definite diagnosis of syphilis be made as early as possible. The methods of diagnosis naturally vary somewhat with the stage of the disease and the location and training of the physician.

A diagnosis in the primary stage is made chiefly by a careful study of a well-taken and complete history, thorough examination of the patient, finding of the treponema pallidum by means of examination of material from suspicious sores and by the complement-fixation test. While the average physician engaged in unlimited or general practice has neither the equipment nor training necessary to make a conclusive darkfield microscopic examination and therefore few do so, every physician can, if he will give the time to it, take a complete history which covers the possibility of exposure to infection, the condition of exposure as well as the time of the appearance of the sore. The period of incubation is of considerable value in differentiating the syphilitic chancre from chancroid, for while there is a rather definite incubation period for the appearance of chancre, from twenty-five to thirty days, there is no such definite period of incubation preceding appearance of the chancroid; it may appear a few hours to two days following exposure.

Physical examination other than that of lesions, which should first be observed and note made as to location, number of lesions and character, should consist of a careful and minute examination of patient. The glands of the groin, the epitrochlear glands, the cervical glands and suboccipital gland should be carefully palpated for enlargement. The lymphatic glands are involved early and extensively. Enlargement of epitrochlear gland is very suggestive of syphilis, but one must eliminate the possibility of enlargement from infection of forearm or hand. The examination is not complete until the entire body has been carefully examined, paying special attention to buttocks, the region of anus and mouth. The tongue and mucous membrane of the mouth, tonsils and fauces also carefully examined.

The physician in general practice depends to a great extent upon the complement-fixation test for the diagnosis of syphilis, and while the reaction is much more positive in the secondary and tertiary stages the more recent investigations show the Wassermann test of far greater value in making diagnosis of syphilis during primary stage of disease than it is usually credited with. In the doubtful cases the provocative Wassermann procedure should be carried out, for it has a definite value.

The diagnosis of syphilis during the secondary and tertiary stage is usually comparatively easy, for it is based upon the same complete history, a thorough examination in which the objective signs are more pronounced and positive, such as the general character of the eruptions, its distribution and color and the now extensive glandular involvement. The laboratory examination of the blood and spinal fluid is much more definite and positive. However, one must ever remember that an early fairly positive

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diagnosis is many times more valuable to all concerned than a late definitely positive one.

William L. Rich *—Syphilis is first a localized disease, and it is of the utmost importance for the future of the individual as well as the safeguarding of the public to make an early positive diagnosis.

Later the disease becomes a generalized infection and practically all the tissues of the body are exposed to damage or even destruction. The methods of diagnosis have been clearly and precisely set forth by those preceding in this discussion. In doubtful cases of primary syphilis when one may be unsuccessful or delayed in demonstrating the spirochaeta pallida with darkfield test and the serological examination is not yet positive, I have found it of great advantage to locate and examine the individual supposed to be responsible for conveying the infection. If we find a frankly positive syphilitic partner, suspicious lesion in the mate developing ten to thirty days after contact may be considered syphilitic. Of course, I do not mean to infer that all patients who have been exposed by venereal contact with a frankly syphilitic individual will invariably contract the disease, but the majority will, and if there are suspicious primary lesions developing after such contact, one may take for granted that such lesions are syphilitic. However, this should not lessen the investigation of the suspected individual. Repeated darkfields of the suspected sore or aspiration of tissue juices are advisable, but such examinations should be done at once, and if not conclusive the patient should be given abortive treatment rather than delaying until a positive diagnosis of the individual is possible.

In considering the possibility of early neurosyphilis, one must bring out in the history not only the occurrence of a suspicious or a proven syphilitic lesion, but also the treatment which the patient has had.

In my experience neurosyphilis is much more likely to follow an early secondary infection which has been treated at once with a large amount of the arsenicals than in those in which the administration of arsenic has been preceded by a thorough course of mercury or bismuth.

After the Wassermann test has become positive, we are dealing with a generalized infection and there is little or no time for antibodies to develop. Nature's own defenses to the disease are destroyed along with great numbers of the spirochaeta pallida. Whether the arsenicals aid in sensitizing the individual or rendering his nervous system more susceptible to the remaining unkilld organisms is a disputed question. At any rate I believe that if one

will use mercury or bismuth for the first ten or fifteen weeks and then follow with the arsenicals that early neurosyphilis will be lessened.

Merlin T.-R. Maynard *—The subject by title has been well covered by the discussants preceding me, so that it is rather difficult to find further meat for consideration. I believe, however, that the following observation may add help to the unraveling of the problem.

The factor I wish to point out is in the diagnosis of the initial lesion. The most important examination to make is that of a darkfield on the aspirated fluids of the inguinal glands. This presents the fewest pitfalls to the practitioner who has not made a study of the various spirochaetes. Next in importance I would place the basal puncture of the lesion, for this is not influenced by various antiseptics which may have been applied. Last of all I would consider the study of the exudate of the sore itself. The finding of a spirochaete in the first or second case hardly admits of other diagnosis, but the finding of spirochaetes in the sore itself presents a need of differentiation difficult to the man who has not had the opportunities of study. I may now be asked as to why the gland puncture is superior to that of the base of the lesion. There is probably only one situation in which this occurs and that is stated hypothetically as follows:

The patient presents a typical sore, but has been applying blue ointment. The physician perhaps feels that he is not practiced in basal or gland puncture and tells the patient to apply compresses of hot saline solution and return the next day. The patient is as anxious as the physician that a correct diagnosis be made and applies many compresses as hot as he can bear and returns. The local darkfield is negative, the physician screws up his courage and does a basal puncture; this is likewise negative. In desperation he does a gland puncture and finds a field swarming with spirochaetes; he is dumbfounded. Short of a gland puncture this patient would not have been diagnosed syphilitic until the secondary stage had become well developed. What has happened? We all regard local antiseptics conducive to negative darkfields, but how many of us have considered the physical agency of heat as a factor? Shamberg and Rule have recently pointed out that the thermal death point of the spirochaete is well within the thermal tolerance of normal tissue. The patient described above has destroyed the infection on the surface of and even to the depth of the chancre by the zealous application of heat. For this reason I believe that gland puncture must always be done no matter how many negatives are received by other methods if the patient has used even the moderate application of heat before the

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* **Merlin T.-R. Maynard** (Twohy Building, San Jose, California). **M. D.** Washington University Medical School, 1922; A. B. Leland Stanford University, 1919. **Graduate study:** Stanford University Medical School Skin Clinic, 1924-26. Intern Lane Hospital, 1922-23. **Previous honors:** Diplomate of National Board, 1923. **Present hospital connections:** Acting dermatologist (visiting) San Francisco Hospital; staff San Jose Hospital and O'Connor Sanitarium, San Jose. **Present scientific organizations:** Member Santa Clara County Medical Society, C. M. A., A. M. A. **Present appointments:** Clinical instructor medicine (dermatology) Stanford Medical School; acting visiting dermatologist San Francisco Hospital. **Practice limited to Dermatology since March, 1926. Publications:** "Warts," Better Health Magazine.

examination, and this would apply even to heat applied some time previously. Also we must not forget that the puncture may be used with equal facility to differentiate the lesions of the mouth.

To the man who has not sterile saline at hand I would say that if a fairly large needle is used for gland puncture with strong negative pressure in the syringe, sufficient fluid for the test will be found in the needle although none has appeared in the syringe.

Ernest K. Stratton*—A patient presents a lesion on the external genitals with no other positive signs or symptoms except perhaps an inguinal adenitis. Clinically this lesion may or may not resemble the typical tissue reaction of primary syphilis, and yet if we are unable to demonstrate the *treponema pallidum* in specimens from this sore or from the gland, we are not justified in making a diagnosis of syphilis, for the reason that we have all seen nonsyphilitic lesions on the genitals which resemble a hard chancre, as well as atypical primary syphilitic lesions. Therefore I consider the demonstration of the spirochaetes absolutely necessary to warrant the diagnosis of syphilis in the so-called primary stage. If this cannot be done I believe in withholding specific medication until a positive diagnosis is made, repeat the darkfield examinations, do frequent blood Wassermans. If either one of these tests become positive before typical secondary signs present themselves so much the better, although there are many syphilographers who believe the general body reaction to the spirochaete invasion, as manifested by the skin eruption, glandular enlargement, etc., to be not without benefit to the patient before medication is commenced.

Our haste in treating primary syphilis with the spirillicides does not prevent a general dissemination of the spirochaetes as is generally believed, for Resoner's work proved the presence of a spirochaetemia in inoculated rabbits ten days before the primary lesion developed, but rather relieves the body mechanism of preparing its natural forces of defense. If we succeed in killing every one of the spirochaetes, then this is the ideal time for attack; however, if a few remain in some rather isolated tissue, what happens then?

In the so-called secondary stage the skin eruption usually consists of a typical macular, maculo-papular, or pustular one, associated with other evidences such as recent quintal scar, mucous patches in mouth and around the anus, moth-eaten alopecia of scalp, palmar lesions, general adenopathy, etc., this group is sufficient to warrant a diagnosis of syphilis; the blood Wassermann is positive at this time in all but malignant syphilis. On the other hand we must not forget that old syphilitics with positive blood Wassermans are just as liable to have other skin eruptions such as toxic erythemas due to drugs, pityriasis rosea, etc., which may resemble the eruption of secondary syphilis. Fortunately we don't see

the lesions of tertiary syphilis as often as before the days of salvarsan therapy; the gumma in the skin, for instance, may resemble tuberculosis, blastomycosis, psoriasis, or epithelioma, we can usually differentiate these clinically, or we may resort to a microscopical examination of a section in case of doubt; the Wassermann test is not so reliable here, although the therapeutic test is of value. A complete history and physical examination is most important in arriving at a diagnosis of tertiary syphilis, disturbances of the superficial and deep reflexes, or of a cranial nerve, loss of co-ordination, shooting pains, etc., angina pectoris beginning in a young individual; these symptoms, signs, etc., should cause one to suspect syphilis and investigate the spinal fluid, heart, and aorta.

We spend a good share of our time dodging the speeding automobiles of rum-runners and a considerable part of the rest of it attending the funerals of the innocent by-standers who are accidentally shot to death by pursuing policemen.

We have policemen of every sort and kind and condition. All our fair cities maintain large and ever larger forces of the common or garden variety of cop. Then we have the state troopers and motor vehicle inspectors; the state conservation police or game wardens, and the ubiquitous town constable is always and ever with us. In addition to all these we have the volunteer policeman, those self-appointed, extra-governmental agencies for the correction of our habits and the protection of our morals, calling themselves civic leagues, or anti-something leagues, or pro-something else leagues with their addenda of relief corps and auxiliaries and the Lord knows what all.

Then we have federal customs inspectors and immigration inspectors and postal inspectors, inspectors from the federal bureaus of agriculture and horticulture and, I was going to say, from the federal bureau of germ-cultures and half a dozen different kinds of federal policemen from the Internal Revenue Department and a dozen different varieties from the Prohibition Bureau.

All these people devote a vast amount of time and an unbelievable amount of energy in unsuccessfully prohibiting me and my neighbors from doing something.—Brigadier-General Ransom Gillette, *Medical Times*.

Tularemia is a disease which has only recently been discovered, first being found by McCoy and Chapin as the cause of a fatal epidemic of ground squirrels in Tulare County, California. It is an infectious disease caused by bacterium *tularensis*, found in nature as a fatal bacteremia of rabbits or ground squirrels, transmissible to man by contact with the internal organs or body fluids of infected animals or ticks.

Human cases have been reported from twenty states, having a distribution over the entire country. From West Virginia five proven cases have been reported, and from a description of certain unusual cases by several physicians in this state, it would seem that many more have occurred which were not at the time recognized. Practically all the cases in this state have occurred during the open season for rabbits, from November to February, being contracted from infected animals.—Editorial, *West Virginia M. J.*

It seems as though the crippled child has only recently been discovered. There are apparently three or four times as many as there are children who are deaf or blind, and where deafness and blindness cannot be cured the great majority of cripples may be made nearly, or quite, normal. The appreciation of this situation has come almost as a revelation. Thirty states have organized societies for crippled children in the last five years and twelve states have made state provision for them, while all of our large progressive cities are now building magnificent schools for their care and education.—Editorial, *J. Missouri M. A.*

* **Ernest K. Stratton** (490 Post Street, San Francisco). M. D. George Washington University, 1916; P. D. Philadelphia College of Pharmacy, 1910. Practice limited to Dermatology and Syphilology. Hospital connections: San Francisco Polyclinic and Mary's Help Hospital. Appointments: Clinical instructor dermatology and syphilology, Stanford University Medical School; clinical assistant in the Department of Dermatology and Syphilology, College of Physicians and Surgeons, Columbia University, 1923-24; Captain Medical Corps (Regular Army), 1917-22.

EDITORIALS

A 1927 MEMBERSHIP CAMPAIGN FOR THE COUNTY UNITS!

Springtime is at hand, and again nature's urge to growth is everywhere manifest.

Why should not our county medical units put themselves in harmony with the spirit of the season, and seek likewise to take on a real budding and further development?

For if the year 1927 is to be marked by a record of special growth of membership in our county and state medical societies, that special increase can only become a reality if the campaign for new members is inaugurated this spring. Now, today, is the psychological time for action. That is the reason these words are written and this plea made in this issue of your journal.

* * *

Medical societies have come into existence because doctors have learned: one, that such organizations make possible greater scientific and professional progress for each individual member of the profession; two, that because of this progress, the members of the profession are able to give more efficient service to their patients; and, three, because in our present-day civilization the standards of professional training and practice must be safeguarded through state laws, and these can only be maintained when supported by organized medicine. In short, the actual achievement of scientific and professional ideals and the protection of the economic interests of doctors in these days in which we live are possible for each of us as individuals only when organized medicine acts for and aids us through its constituted national, state, and county medical societies. This statement applies to each of us, whether or not we be members of such societies, or whether or not we be active therein. In the last analysis, it is to our medical societies to which we turn to set the standards for our scientific and professional achievements, and to protect the legitimate material interests that are a part of our own, as of every other profession, vocation, business, or trade.

These being the premises we must come to the conclusion that these various interests can be most successfully developed if our societies contain on their membership rolls not many, or the majority, but practically all the licensed physicians and surgeons, who through training and methods of practice are eligible to membership therein.

* * *

As a matter of fact, however, there are many eligible physicians and surgeons in California who are not among our membership. This is due in good part because we leave the invitation to join our associations to chance contact through some individual member. It is true we grow, but often our growth is somewhat like that of Topsy in her growing age, when "she just grew."

The object of this plea is to replace this haphazard growth by an organized effort to reach all

eligible physicians; to start this program at once; and to outline a plan that in the past has netted results, more than justifying the efforts expended.

It may be of interest to note that California has 8363 licensed physicians, with 3735 in its state association; Utah has 505 licensed physicians with 339 in its state society; and Nevada has 129 licensed physicians with 115 in its state organization. Equally interesting figures can be compiled for the different counties in these states.

* * *

The procedure in such a membership drive program could be outlined as follows:

1. The president of every county medical unit in the state, on his own authority or with the co-operation of the other officers, would select as chairman of the membership drive committee some outstanding, enthusiastic, result-getting member.

2. This chairman, in conjunction with the society president and other officers, would determine what other members should be on the committee. (In the larger societies such additional committee members would act practically as captains, each having the right to secure the cooperation of other members.)

3. The entire committee and officers would then hold a joint meeting. Each committee member would be requested to bring to this conference his own copies of the directory of the California Medical Association and the directory of the Board of Medical Examiners.

These directories give explicit information concerning every licensed practitioner in California. All seemingly eligible licentiates would be given to some one or other of the committee members (depending on personal acquaintance, office location nearness, college affiliations, and so on). Each committeeman would be expected to assume responsibility for his quota of eligibles even though he had to pass on some of these names to subcommitteemen whom he would himself appoint.

This meeting at which the entire committee would divide the eligible non-members among themselves, should be attended by the members of the Council and Membership Committee of the county society. When the list of non-members is read, a goodly number of the non-eligibles can be then eliminated by mutual consent, and at a minimum expenditure of time and effort. If this joint action is not secured, non-members may be solicited, who later on might not be voted into membership. This embarrassing situation must be avoided as much as possible.

4. Each committeeman would then call on the eligible licentiate, present the advantages of membership, and if possible have the doctor called upon, sign an application for membership. (In making such a call, showing the April convention number of CALIFORNIA AND WESTERN MEDICINE, in which the program of the fifty-sixth annual session is printed, would make easier the presentation of the comprehensive scope of organized medicine in California.)

5. The chairman would call a conference meeting of the committee in one or two weeks to check on progress, and the committee secretary would make a note of the reports submitted. At this time changes in assignments could be made if desired.

Several such meetings could be held until the campaign came to a close. Such a campaign should be pushed sufficiently, so that all major results would accrue within thirty days' time.

* * *

To some readers the procedure above outlined may seem undignified. There is, however, nothing undignified in such a campaign. If we believe that medical societies make for better service to the people, and that all eligible licentiates should be members thereof, then it follows that we owe it to ourselves and to the profession we love, to bring such eligible licentiates into harmonious relationship with us. We would have a better right to reproach ourselves if we failed to do our parts in an effort such as this.

A membership drive for our county and state societies would seem very much indicated for this spring season of the year 1927. It could do no harm and would probably result in much good to all concerned.

If you, Doctor Member, who read these lines and this plea, believe in it and wish to help, you can do so in effective manner by telephoning or writing your president or officers urging them to institute such a campaign on behalf of your own county society.

If we all give our aid in this, the year 1927 will be marked by a special increase in our county unit and state society memberships, with resulting stronger and better local and state organizations.

The end-results would be worth the effort. If we believe in these things we will start such a campaign at once. And the way to begin, is to begin. Let every member do his part.

ADDRESSES OF PRESIDENTS McARTHUR AND PHILLIPS

CALIFORNIA AND WESTERN MEDICINE in this issue prints the valedictory address of the retiring president of the California Medical Association, Dr. William T. McArthur of Los Angeles, and the inaugural address of Dr. Percy T. Phillips of Santa Cruz.

These honored colleagues presented viewpoints of some of the many problems confronting organized medicine, and their suggestions are well worth the perusal and thought of every practitioner of medicine and surgery who is licensed in California. It is worthy of special thought, that Doctors McArthur and Phillips, in taking up, along different roads of approach, the consideration of some of the problems confronting organized medicine, found many activities of major importance to discuss, without at any time trenching to any extent, on the territory mapped out in the discourse of the others. In the few instances, when the same topics were dealt with, the double treatment only gave emphasis to the questions under consideration.

It is neither possible nor desirable that each address be analyzed in this May issue of our journal, which goes to press at a date prior to the beginning of the fifty-sixth annual session which was held at Los Angeles. The June issue of CALIFORNIA AND WESTERN MEDICINE will contain the complete pro-

ceedings of the House of Delegates. A considerable number of the matters presented by our retiring and incoming presidents undoubtedly will have been given special consideration by that body. A few comments at this time may not be amiss, however.

* * *

Retiring President McArthur stated sound truths in: "It is considered good business for any organization to have an annual audit; to evaluate the business done; to examine and appraise its stock in trade; to look carefully into the profit and loss account; and after a thorough investigation, to initiate changes where such seem desirable." Of course, all phases of medical science, medical art, and medical economics were included in the foregoing paragraph.

The standardization of hospitals, to the end that the highest type of professional and other service may be given at a cost that implies no wastage in hospital management, and which throws no avoidable financial burdens upon patients, is and will continue always to be a very proper field of inquiry.

The paramount place which the keystones of all expressions of organized medicine in America—the American Medical Association, the state medical associations, and the component county medical units, must ever hold, can never be overvalued. It is these organizations that form the solid foundation for all scientific advancement in our profession; but also which constantly bring us back, as do none of the many other scientific societies in medicine, to the art of medicine. And equally important, is the fact, that while we may be willing to serve in the profession of the healing art, it is essential that we properly live, in order to give good service. It is our national, state, and county medical societies which protect the material rights of the medical profession; and it is to those organizations we turn for leadership, when economic dangers and injustices threaten. It behooves every ethical licentiate of medicine to support each and all of them, in fullest measure.

* * *

President Phillips' figures, showing the total number of licensed physicians in California, according to the latest figures of the California Board of Medical Examiners, and the total enrollment in the California Medical Association, merit serious thought. An editorial in this number of our journal outlines a plan which, if promptly and vigorously put into execution, will make the distance apart in the gross figures above referred to, less pronounced. The more we increase the proportion of county society members to total numbers of licentiates in California, the better organized and the more efficient will be our state and county societies. When we would be proud of our strength, let us remember that we could be even stronger; and determine to make ourselves so.

The important functions so successfully performed by the California State Board of Health merits the commendatory words given thereto. The colleagues who so willingly give their services on that board do so out of love of humanity and of their profession. They have our gratitude for the honor they do us in so ably serving the people of our state.

Doctor Phillips for years has been a member, and for several years has been the competent chairman of

the California Board of Medical Examiners. His is an extremely intimate and worth-while knowledge of the many problems which that board must solve, in its double function of aiding in the protection of the public health interests of our commonwealth, and in the maintenance of proper professional standards for our profession. His comments on medical education and some of the results which have been brought about through devotion to idealistic rather than to practical standards, should make all members who love their profession in the big and broad sense, take heed. We must not be too proud to rectify some of the undesirable results which exist, but which we did not foresee, when the comparatively recent elevation of standards of professional medical education were brought into being in America. This special problem has been seriously discussed by the council of our society, during the last year, and will receive future comment in these columns.

* * *

The two addresses could be commented upon at considerable length. The words here written have been intended to call attention only to some of the outstanding matters.

The California Medical Association thanks retiring President William T. McArthur for his gentle but loyal and generous service to its interests. To President Percy T. Phillips, its members promise their full support, in his leadership during the coming year. And to our president-elect, to whomsoever that great honor may come, our congratulations and promise of cooperation in proper time, are likewise given.

PROGRESS IN CLEAN MEDICAL ADVERTISING

There are encouraging indications that progress is being made in the campaign for clean and reasonably honest medical advertising. More and more great metropolitan newspapers are revising their policies and practices in this respect. True, most of the road is still to be traveled, but that we are going forward at all is most encouraging.

The focusing of a number of influential forces is accountable. In addition to the pioneer work of physicians' organizations, led and constantly sustained by the American Medical Association, and carried almost entirely for many years by ethical medical journals, led and encouraged again by the Journal of the A. M. A., we now have the aroused and powerful support of such agencies as the Postal Authorities, the Federal Trade Commission, the Associated Advertising Clubs, the Better Business Bureau, and some other branches of big business; the strong stream of remarkably fearless and intelligent discussion of the problem in books and magazine articles; the example of a few great newspapers that have always refused to promote medical quackery in either their advertising pages or reading columns; the enthusiasm of papers more recently converted to this policy; and by no means of least importance, the public disgust produced by certain tabloid papers and so-called magazines that deal almost exclusively in pruriency, salaciousness, vulgarity, vicious gossip, and whose advertising pages

are nauseatingly disgusting to reasonably intelligent, reasonably wholesome people. By carrying "yellowness" to its logical conclusion, they are building a Frankenstein for their own destruction, the reaction against which already is proving a tremendous stimulant to better advertising and news practices by legitimate newspapers and periodicals. The effect on public opinion and consequently upon legitimate advertisers of legitimate wares is now being re-studied, explained and written about by those who have something to sell; and their findings, based primarily upon expediency, are increasingly influencing them in the more intelligent selection of their advertising mediums. It is axiomatic that advertisements are judged quite as much by the company they keep as are persons.

Advertising is the main support of practically all newspapers and periodicals, and the education of the advertisers will justify, let us hope, more and more newspapers in adopting the policy of cleanliness and reasonable honesty in advertising and "news" which doubtless most of them would prefer to follow.

Those interested in the ramifications of advertising through almost every phase of the cosmic scheme, why it is so, and how it affects every citizen, will find in "Gnats and Camels: A Newspaper Dilemma," by Earnest Elmo Calkins (*Atlantic Monthly*, January, 1927), an excellent analysis of the outstanding features of this most important problem, affecting as it does every home and every citizen.

Physicians have a right to feel encouraged that they are no longer a few voices crying in a wilderness. But the battle has not been won—only a few important outposts of a well-entrenched enemy of civilization have been driven in; and to win the war we must gird our loins and follow the principle initiated by the immortal General Grant.

—W. E. M.

BLAMING THE COST OF SICKNESS ON DOCTORS AND HOSPITALS

Probably the most widely read publication in the world—*The Saturday Evening Post*—is devoting a considerable portion of its editorial space to discussions of medical problems. The editorials are well written and doubtless far reaching in their effect. For the most part they reflect sound medical judgment. Sometimes, as in their recent editorial on "The High Cost of Sickness," they draw conclusions about a vast complicated problem from evidence covering only one of its phases, and thus leave in the minds of some readers the impression that the cost of sickness can be materially decreased by cheaper hospital facilities, which in turn may be secured by better business methods in the conduct of hospitals. Many other serious writers make the same mistake, but their messages have neither the circulation nor telling effect of those in the *Post*.

That improved business methods are sadly needed in most hospitals is a fact, and it is also a fact that such methods would lead to somewhat decreased costs for current service, but new services and new costs are constantly being added to hospital requirements and these contribute to the steady rise in the

costs of good hospital care. But the chief reason for growing costs of hospital services is bound up in the increased costs of personnel and materials.

Good hospitals must have the services of more classes of professionally and technically trained individuals—as well as several classes of skilled and unskilled labor—than any other “business.” These people, like those in other “businesses,” must be paid, and it is a well-known fact that hospitals pay their executives, nurses, engineers, plumbers, painters, carpenters, accountant, clerks, and even unskilled laborers, less than they are paid by other businesses.

Then, too, good hospitals must purchase some 20,000 different items of material, the prices of which are precisely what they are to other organizations or people. Grocery, dry goods, fuel oil, electric, water, and all other vendors expect pay from hospitals at the same rates they charge other people for their goods.

Recently in these columns we briefed the story of a man who went to a fine hospital for two weeks, during which time he was operated on and had twenty-four-hour care at his bedside in a private room. His wife stopped at a near-by hotel; she did not have “room service,” but her bill for the two weeks was more than her husband’s hospital bill for the same length of time, exclusive of the surgeon’s personal fee.

No one has accused hotels of not being conducted by good business men and we don’t hear much about their high costs for service, and yet the patient in a good hospital not only has every service that a good hotel can give, but many others that hotels are not concerned with.

Every legitimate effort should be made—and in good hospitals is being made—to keep the costs of service as low as possible. The first requirement in the struggle for this goal is a good accounting system which will reflect all of the facts; and the next is a wise, tactful executive, or, in other words, the constant aim at better business methods, which, however, must be made as inconspicuous as possible.

Physicians individually and collectively have many faults and so have hospitals, the chief of which lie in the broad field of economics, but to blame them for the major items involved in the cost of sickness is neither fair nor just.

THE LOS ANGELES MEETING

When the May number of CALIFORNIA AND WESTERN MEDICINE is delivered to the members of the California Medical Association, the fifty-sixth annual session will be an event of the past.

The program printed in the April number gave every indication not only of a successful session of the scientific sections, but of a very enjoyable meeting from the social and fraternal standpoints, and it probably so resulted.

To the local committee of arrangements, of which Dr. William Duffield of Los Angeles was chairman, the association expresses its appreciation for the efforts which were made to make this year’s meeting an outstanding one in the history of our organization.

It is our belief that all members who attended will

feel that their time was better than well spent. Further, it is hoped the accounts they carried home to their local colleagues will lead a goodly number of those who have not yet acquired the convention habit, to take up this gentle vice. Once committed to it, it is difficult to be among the absentees; especially, since he who attends wipes from before his eyes the cob-webs of daily routine, and in the convention atmosphere becomes reinvigorated by the enthusiasm, achievements, and kindly thought and regard of colleagues from all sections of California.

Therefore, resolve herewith and now, that you will be among those who will register “Present” at the 1928 meeting, wherever that may be.

NEWLY ELECTED OFFICERS

President-elect, William H. Kiger, M. D., Los Angeles; vice-president, T. Henshaw Kelly, M. D., San Francisco. Place of next year’s annual session, Sacramento.

Full details of the transactions of the House of Delegates will appear in the June number.

The Appellate Court of Indiana, in reversing a judgment for \$9000 damages which was rendered in favor of plaintiff Bonham, says that the sole charge was that the defendant, in the performance of a deep abdominal operation on the plaintiff, had negligently left a sponge in the abdominal cavity. . . .

The evidence in this case disclosed, without conflict, that, in performing the operation in question, the defendant was assisted by certain graduate nurses, not servants of his, but regular employees of the hospital where the operation was performed. . . .

Tested by the authorities, the court must hold that the verdict of the jury in this case was not sustained by any competent evidence, and that the defendant’s motion for a new trial should have been sustained. It has been expressly held that a surgeon who performs an operation at a hospital, not owned and controlled by himself and who is assisted in such operation by nurses, not his employees, but employees of such hospital, is not responsible for the mistake or negligence of such nurses in failing to count correctly the sponges used in such operation, whereby a sponge is left and sewed in the body cavity of the patient. *Baker vs. Wentworth*, 155 Mass. 338, 25 N. E. 589.—*J. A. M. A.*

University of California Doctors Visit Eastern Conference—Proof of the increasing recognition which western science, medicine in particular, are receiving has been disclosed by an announcement of Dean L. S. Schmitt, director of the University of California hospitals to the effect that within the next few weeks ten members of the University staff will have participated or delivered addresses at national scientific gatherings in the East.

Listed among those doctors who will carry the latest developments in research and clinical investigation to their fellow-workers on the other side of the Mississippi are Dr. Herbert M. Evans, Dr. J. H. Woolsey, Dr. George O. Burr, Dr. G. Y. Rusk, Dr. W. J. Kerr, Dr. Frederic Ebersson, Dr. J. J. Sampson, Dr. Howard Fleming, Dr. Alice Maxwell, and Dr. Frank M. Lynch.

Special legislation has been enacted in Oklahoma appropriating funds for the erection of a children’s hospital in connection with the State University Hospital, and the law providing for the care of indigent crippled children changed so that other hospitals than the University hospital will be permitted to care for these cases. Under the law, all hospitals for orthopedic surgery will have to be approved by the faculty of the medical school. It carries a tenth mill county tax to create a fund for the aid of crippled children. The surgeons will receive no pay, but the hospitals will receive \$15 per week to cover cost of all materials, braces, and other costs of treating the patient.—*Oklahoma M. J.*

MEDICINE TODAY

Current comment on medical progress, reviews of selected books and periodic literature, by contributing editors.

Dermatology and Syphilology

Lupus erythematosus has earned the reputation of being one of the most obstinate conditions encountered in dermatological practice. Although not a common disease it occurs often enough¹ (about once in three hundred skin cases) to constitute a serious problem. Usually the eruption spreads itself across the center of the face in a very disfiguring manner. The etiology is still a matter of dispute, some investigators attributing it to a focus of tuberculous infection somewhere within the body, others regarding it as a toxic injury from some non-tuberculous focus, such as infected tonsils or teeth. Many instances are on record in which a most careful search has failed to reveal any evidence of tuberculosis, and where removal of all suspicious foci of infection has failed to influence the eruption.

The recent announcement of Schamberg and Wright² of the use of gold and sodium thiosulphate (sanocrysin) in the treatment of lupus erythematosus marks an important advance in dermatological therapeutics. These authors review the literature on gold therapy in this condition and report an additional twenty-five cases with the following results: complete disappearance of the eruption in five cases; almost complete disappearance in six cases; improvement in twelve cases, some of which are still under treatment; no improvement in one. One patient died.

They are the first to use gold and sodium thiosulphate for lupus erythematosus. Other preparations of gold, especially krysolgan (4-amino-2-aurothiophenol carbonic acid) have been used during the past six years, although Ruete employed gold potassium cyanide in two cases in 1913. Summarizing the cases reviewed by Schamberg and Wright which had been treated by various men, mostly in Germany and Austria, the following results may be noted: cured, 48; much improved, 10; slightly improved, 12; no change, 7; aggravated, 4; died, 2. This gives a total of eighty-four cases of which 57 per cent were cured.

Synocrysin, which was perfected and carefully studied by Mollgard,³ is considerably less toxic than krysolgan; the former is tolerated intravenously in rats in doses of 35 mg. per kilogram body weight as against only 20 mg. per kilogram for krysolgan. Krysolgan, however, contains a greater amount of gold. In their series of cases Schamberg and Wright employed the gold and sodium thiosulphate intravenously in doses ranging from 50 mg. dissolved

in 2 cc. of sterile distilled water, up to 100 mg., at intervals of five to seven days. In the cases which were cured or markedly improved, from two to twenty injections were given. One patient received 100 injections. A number of patients in this series had been given other preparations of gold before beginning gold and sodium thiosulphate. One patient who inadvertently received six times the maximum dose (600 mg. once a week for four injections) did not suffer any serious consequences other than malaise and general depression, but doses of this size are not advisable at the present time.

Toxic reactions which were occasionally encountered were usually not serious, consisting for the most part of fever, chills, occipital headache, nausea, vomiting and various types of rashes (including urticarial erythematous, lichenoid, exfoliative and eczematous types). Uterine bleeding and transitory albuminuria, with blood and casts, have also been observed. Several instances of focal reactions were noted. The authors urge great care in the treatment of disseminate lupus erythematosus; they feel that the fatal acute attack in one of their patients may have been induced by the treatment.

Lesions of lupus erythematosus which had received previous treatment with x-ray were much more refractory than other lesions in the same patient which had not received x-ray.

The authors do not advance any explanation for the almost specific action of gold in lupus erythematosus. The results are much more satisfactory in this condition than in lupus vulgaris, which is a known tuberculous disease with tubercle bacilli actually present in the skin.

SAMUEL AYRES, JR.,
Los Angeles.

Industrial Medicine

Toxic Hazards in Industrial Medicine—Toxic hazards have come to occupy a rather important place in industrial medicine. Sometimes chemical substances are very widespread in their usage, so that they become not only industrial problems but public health problems as well. Such was the case presented by the commercial introduction of tetraethyl lead, which is used as an "antiknock" compound, by mixing it with ordinary gasoline for fuel uses in motor cars.

The United States Public Health Service has issued a series of regulations which provide for (1) the manufacture and blending of tetraethyl lead, (2) for mixing with gasoline, (3) for distribution of ethyl gasoline, and (4) "proposed regulations for automobile garages, repair shops, service stations, and filling stations." It is an interesting fact that the controversy which followed the introduction of tetraethyl lead also gave rise to regulations affecting the general conduct of all places where automotive vehicles are housed, repaired or restocked with fuel.

The Ethyl Gasoline Corporation has also issued some regulations for the handling of ethyl fluid, written by the medical director, Dr. R. A. Kehoe.¹ Practically all unfavorable effects of exposure are

1. Darier and Pollotzer: Textbook of Dermatology, Phil. and N. Y. Lea & Febiger, 1920.

2. Schamberg and Wright: Arch. Derm. and Syph, 15: 119, 1927.

3. Mollgard: The Chemotherapy of Tuberculosis, Copenhagen, Burk, 1924.

1. Rules and Regulations Governing the Handling of Ethyl Fluid. Dr. R. A. Kehoe. Abstr. by Journ. Indust. Hyg., 9: 4, January, 1927.

to be expected only in the case of those who handle ethyl fluid in its undiluted state, as the report specifically states "there is no exposure to ethyl fluid as a result of the inhalation of vapor arising from gasoline containing ethyl fluid in commercially indicated concentration."

"Motalin" is the trade name for a substance which is used to relieve the pounding encountered in motor vehicles and has apparently met with considerable success in experiments carried out in Germany. The compound is made up of benzine, which contains 0.2 to 0.25 per cent of *iron carbonyl*. The report states² that there is little alteration in the physical and chemical properties of the benzine and that the compound may be employed with no greater precautions than are necessary in the handling of ordinary benzine. Experiments have furthermore shown that there is more complete combustion, less carbon monoxide and other injurious products being formed. This also decreases the exhaust gas hazard.

Lead poisoning has come to be one of the major public health problems in industrial toxicology. There has been much investigation done from the standpoint of treatment and prevention. As in other fields of therapeutic endeavor there have been some empirical and unscientific methods adopted and in some cases exploitation of so-called "specific antidotes." A recent short article in "Queries and Minor Notes" of the *Journal of the American Medical Association*³ takes up this point:

"Much propaganda has appeared centering largely in the advertising of a maker of 'intravenous specialties' to the effect that sodium thiosulphate intravenously administered is to be favorably regarded as 'an antidote for arsenic, bismuth, mercury, and even lead poisoning.'"

The Council on Pharmacy and Chemistry had previously (*J. A. M. A.*, April 25, 1925, p. 1289), issued the following statement:

"Its use against metallic poisoning other than arsenical dermatitis is only in an experimental stage, good results in mercurial poisoning have been reported; but the uncertain outcome of mercury poisoning under any methods of treatment and especially the uncertainty as to how much of the poison was removed from the stomach by other chemical antidotes and lavage, make it difficult to draw definite conclusions."

The scientific experiments of Aub et al. during the past five years have attracted favorable and widespread comment. These researches⁴ demonstrated that lead is stored in the calcareous portion of the bones and is liberated by the administration of ammonium chloride or phosphoric acid. Aub has felt that the number of cases of lead intoxication on which sodium thiosulphate has been used is too small to warrant any reliable conclusion.⁵

Still more recently Hunter and Aub⁶ have shown that the metabolism of lead and calcium are similar and possibly related. By the administration of parathyroid extract (Collip) to six patients having lead poisoning, the excretion of lead was found to be much greater than when ammonium chloride and

phosphoric acid were given. The method may prove of value where there are facilities for hospital care and scientific laboratory work.

The final status of accepted therapy in plumbism seems to depend on future investigations.

C. O. SAPPINGTON,
Oakland.

Orthopedics

Congenital Dislocation of the Hip—Congenital dislocation of the hip is four times as frequent as club-foot, and twelve times as common as wry-neck. Often unrecognized in infancy and relatively nondisabling in early childhood, it becomes a severely crippling disability with increased weight and growth. Less than fifty years ago it was considered incurable. Now there is hardly to be found a crippled hip so severely distorted or so long neglected that it cannot be made better.

Effective efforts to correct the deformity began after general anesthetics came into use, but no great progress was made until after Roentgen discovered the x-ray in 1885. In 1894 Lorenz of Vienna became stimulated by the work of Paci of Bologna, and a year later published his first treatise on the "bloodless" method of reduction.

Lorenz came to America in 1902 and made a pilgrimage from New York to San Francisco, stopping in Chicago to reduce the hips of the Armour child. The newspapers were filled with stories of the great "bloodless" surgeon, and the American public read about congenital dislocation of the hip.

For several years, prior to Lorenz' visit, our orthopedic surgeons had been using the "bloodless" manipulation with some success, but with growing dissatisfaction because of its violence. Some of these men had already evolved for themselves methods more efficient and less dangerous. Of the Americans who were at that time pioneering the field three at least became great masters in the treatment of hip dislocations, namely, John Ridlon, G. G. Davis, and E. H. Bradford.

Complications resulting from the violence of "bloodless" manipulations caused some surgeons to revolt against manipulative methods and turn to open operation. Among these was the late Dr. Harry Mitchell Sherman of San Francisco. Doctor Sherman's courage, skill and finished scholarship made him a conspicuous figure among American orthopedic surgeons. His paper, "An Argument Concerning the Treatment of Congenital Dislocation of the Hip" (*Am. Jour. Orth. Surg.*, January, 1905), is a classic. Later, influenced by the great skill of his friend Doctor Ridlon, and by his own increasing experience, Doctor Sherman inclined more favorably toward manipulative reduction.

Lapse of time gave perspective for comparison of different methods. The Hip Commission of the American Orthopedic Association (*Am. Jour. Orth. Surg.*, August, 1921, and *Bone and Joint Surg.*, October, 1922), reported, laying particular stress upon gentleness as a primary desideratum in manipulation. The methods of Denucé, Ridlon, Davis, and Hibbs were specially commended.

Those who have had the largest experience are overwhelmingly in favor of closed reduction in

2. Motalin. Abstr. by Journ. Indust. Hyg., 9 : 29, February, 1927.

3. *J. A. M. A.*, 87 : 2020, October, 1926.

4. Fairhall, L. T., and Shaw, C. P.: Lead Studies, Journ. Indust. Hyg., 6 : 159, August, 1924.

5. Personal communication.

6. Hunter, D., and Aub, J. C.: Lead Studies: XV. The Effect of the Parathyroid Hormone on the Excretion of Lead and Calcium in Patients Suffering from Lead Poisoning, Quart. J. Med., 20 : 123, January, 1927.

young children, reserving open operations for the older and more difficult types.

Reduction should be accomplished as soon as the child is old enough so that soiling of plaster cast can be reasonably controlled. The limb is immobilized for four to six months after reduction.

Manipulative reduction becomes increasingly more difficult and disappointing after the age of 6 years.

World War experience has led to the application of skeletal traction to old resistant cases. (See "The Treatment of Old Congenital Dislocation of the Hip," Abbott, *Arch of Surg.*, May, 1926.) Reconstructive and stabilizing operations upon the hip-joint perfected by Albee, Whitman and others, have opened the way for vastly improving the most extreme cases.

The literature is very voluminous. (Lorenz' book "Die Sogenannte Angeborene Heufverrenkung, ihre Pathologie und Therapie, Stuttgart, Enke," 1920, carries a thirty-page bibliography.)

The following conclusions seem warranted:

1. A stable and normally movable hip without pain or shortening is the ideal to be striven for.

2. Reduction by gentle manipulation is usually possible in children up to five years; functional cures upward of 70 per cent.

3. Many cases up to the age of 12 years may be successfully treated by manipulation, but these older cases must be carefully selected.

4. Stability with mobility and lessened shortening may be secured by special operations in many severe cases which cannot be completely cured.

5. Open operation rather than extreme force in manipulative reduction is the method of choice in older and more resistant cases.

6. Skeletal traction applied over a considerable period facilitates operative correction and makes for better results in certain types of difficult dislocation.

7. Normal function is often observed in cases where the x-ray, years after reduction, shows definite distortion, of the femoral head or the acetabulum or both.

8. The integrity of the hip musculature must be preserved or restored if the hip is to be stable and movable.

9. Contracture of the capsule and other soft tissues may make open operation the method of choice even in a very young patient.

10. In extreme cases, stability with lessened shortening results from arthrodesing operations and is a great improvement over a short, painful and unstable limb.

11. Incision cannot per se take the place of stretching manipulations, but the blind uncertainty of "bloodless" reduction is a serious danger.

12. A combination of (a) preliminary stretching, (b) incision including cutting of those resistant structures which can with less damage be thus dealt with, and (c) stretching manipulations during the course of operation will become the routine procedure in an increasingly larger percentage of congenital hip dislocations.

E. W. CLEARY,
San Francisco.

Syphilology

Parenteral Milk Injection in Syphilis—Parenteral milk injection is finding a place in the therapy of syphilis, especially neurosyphilis.¹ It is more easily controlled than malaria inoculation, and for which it is apparently an efficient substitute. The mode of action of milk injection and malaria treatment is the same—stimulation of the immuno-defense reaction of the host.

Just what element of malaria therapy is responsible for its beneficial action has been an interesting study. A clinical application^{3 5} of Schamberg's⁴ experiments on heat therapy in rabbit syphilis has been so far disappointing. The fact that patients who are helped by malarial treatment usually have a leucocytosis,⁵ while malaria commonly presents a leucopenia, also indicates that some other factor besides the fever exerts the favorable influence. The most logical interpretation of malaria therapy is that of Joseph Schumacher.⁶ The lipid-albumin compounds liberated from the disintegrating erythrocytes and spleen cells act as an autogenous antigen, which incites the production of lipoproteolytic ferments. His experiments show that parenteral injection of albumin, lipoid, or lipoid and albumin simultaneously but separately, brings about the production only of lipolytic or proteolytic ferments, neither of which has any action on the spirochaete. To produce a lipoproteolytic ferment requires the injection of a lipoid and albumin combination or mixture. Schumacher demonstrated that this ferment is spirillicidal. The so-called nonspecific therapy is only nonspecific in a bacteriological sense; it is very specific therapy biochemically. Schumacher showed that by simultaneous administration of arsphenamine and lipoid-albumin the therapeutic index of the former was much increased. The skin is important in the production of lipoproteolytic ferments, and lack of skin lesions will permit the spirochaete to become well entrenched in the nervous system during early stages of the disease. Lipoid-albumin injection offers an easily controlled therapeutic equivalent of skin lesions.

A very convenient lipoid-albumin antigen is sterilized skimmed milk. Some of the commercial ampoules contain only lactalbumin, which incites the production of proteolytic ferments only and are useless in treating syphilis. One must bear in mind that milk injections will produce a positive blood Wassermann^{7 8} in a nonsyphilitic subject, such reaction being removable by arsphenamine, so serological improvement only occurs if arsphenamine is administered simultaneously, or when administered later.

MERRILL W. HOLLINGSWORTH,
Santa Ana.

1. Budapest correspondent, *Jour. A. M. A.*, Chicago, 1925, lxxxv, 916.

2. Starcke, A.: *Nederlandsch tijdschr. v. geneesk.*, Haarlem, 1924, lxxviii, 1751.

3. Unpublished studies at White Memorial Dispensary by the writer.

4. Schamberg, J. F., and Rule, Anna M.: *Arch. of Derm. a. Syph.*, 1926, xiv, 243.

5. Pijper, Adrianus, and Russel, Elisabeth D.: *South Af. Med. Record*, 1926, xxiv, 292.

6. Schumacher, J.: *Am. Jour. Syphilis*, 1926, x, 432.

7. F. Klopstock, *Deutsche med. Wchnschr.*, 1925, li, 1701.

8. Smith, J. R.: *U. S. Naval Med. Bull.*, 1925, xxii, 334.

MEDICAL ECONOMICS, ORGANIZATIONS AND AGENCIES

Suggestion Boxes—The first of the titles of this column is "Medical Economics."

Medical Economics is not new, for it came into existence when the first practitioner of the healing art, licensed or unlicensed, way back in the Stone Age, accepted a gratuity or pay from some fellow-man whose sufferings he had alleviated.

Nevertheless, in medical magazine literature the heading "Medical Economics" is comparatively new.

Which develops the thought that non-editors, namely, the members of the California Medical Association, may be able to send in "medical economic" suggestions that could be of real value in upbuilding our state society and its county units.

* * *

Therefore, the words of B. C. Forbes, a well-known publicist in the business columns of the press, may have a pertinent value to us. Let us quote from one of his recent articles:

"The suggestion box is rapidly becoming standard equipment, so to speak. Every progressive management in large plants now welcomes new ideas from those doing the actual work.

"The usual course is to offer specified prizes every month or every three months or every six months or every year.

"In other organizations the men are rewarded according to the value of the improvements they conceive.

"But, after all, most workers who are intelligent enough, resourceful enough, enterprising enough to discover or invent better ways of doing things are of the type that would welcome advancement more than anything else. A \$100 prize or a \$500 prize is very cordially welcomed. But its value is little in comparison with promotion to a job paying more money every day or every week of the year."

* * *

The above is on the sordid plane of business, it is true, and yet business principles are necessary and must be applied, if doctors are to earn their bread and butter, and to live in the social station that is their due and right.

Medical men who love their profession, think of it, plan for it, and are anxious for it to advance. In the California Medical Association there exists a multitude of such loyal coworkers. Their journal, CALIFORNIA AND WESTERN MEDICINE, exists because of and for them. Their suggestions are most welcome. Let none who have thoughts for the advancement of our guild hesitate to communicate with the editors of CALIFORNIA AND WESTERN MEDICINE. Your ideas will always be news, even though at times we may disagree with you.

Let it be known that your "suggestions" are welcome, even though we have not a box in your near vicinity in which to place them. Uncle Sam will care for them if you address them to "California and Western Medicine, 805 Balboa Building, 593 Market Street, San Francisco, California," and the editors will be glad to transmit them through printed page or otherwise to the proper officers and members.

News About "Health" is Real News—Arthur Brisbane discussing "What Is News," among other items, takes up a vitamin D discovery, and then adds the following general but very significant paragraph about health:

"Health news and educational news are the really important kinds of news. 'Give light and the people will find their own way,' as Dante said. Give health and they will have energy to work well. Morals change and return to normal with time. Health and knowledge are what count."

Life Span Prolongation—Who is Really Responsible Therefor.—The newspaper item here printed, suggests the remarks attached thereto.

"San Francisco, March 20.—With a magnificent gesture this nation presented 37,000,000 years to the 2,500,000 babies born in the United States during the last twelve months. . . .

"For it is only in these last years that social service, utilizing the findings of science, has been able to save the above babies out of the numbers usually considered 'doomed.'

"There is no reason why a still greater cut in infant mortality should not be achieved within the experience of this generation. . . .

"The huge sum of \$2,000,000,000 is spent annually by the people of the United States for social service work. . . .

"Other outstanding achievements of social activities were these:

"Lives of 900,000 adults saved.

"Through mothers' pensions 136,000 children were left in parental care who would otherwise have been sent to orphanages.

"Thousands of families were reunited.

"Industrial accident compensations to the amount of \$250,000,000 were paid out, prevent pauperism.

"The number of commitments to penal institutions were cut by almost one-fifth."

* * *

In the above quotations, Mr. Lapp, social service worker, seemingly was not aloof to ascribing to social service work an extra measure of praise.

Of course, he may have been quoted only in part. Nevertheless a few more words on the fact that the prolongation of the average length of life-span was due in very large degree to the discoveries by medical men, of new means of handling preventable diseases, and better methods in handling acute and chronic diseases, might not have been amiss.

It has been the medical men largely who in recent years have made the discoveries in medical science that have astounded and bettered the world.

It has been the medical profession, also, through its publications, that has given freely to the people of the world the knowledge enabling civilized peoples to institute measures for better disease prevention, and for the better care of the sick and injured.

It is this profession, which has names without end, of members who again and again have given to the world the results of years of study and successful research without asking for one penny of personal money reward. It is a noble and outstanding record that belongs to the medical profession in this respect, and which differentiates it from almost all other professions and vocations. The medical profession makes wonderful discoveries in science, gives the knowledge to the world without cost, and its members often bear the largest share of the burden in making these researches applicable to the needs of the world.

Our helpers and assistants, such as the social service workers, who in one sense are hand-maidens to the medical profession, have a particularly good opportunity to observe this. They may well be generous in giving credit where credit is due.

Dr. Walter Coffey of San Francisco Suggests a Mutual Insurance Company for Members of the California Medical Profession—At the meeting of the Council of the California Medical Association on Saturday, March 19, Dr. Walter Coffey of San Francisco, in informal conversation with a fellow-member, brought up the desirability of a doctors' mutual life insurance organization, or as a possible subsidiary of the California Medical Association.

His fellow-councilor, who briefly discussed this matter with him, noticed in the press of the next day an interesting item concerning the activities of the Standard Oil Company of California. This item took up the matter of pensions, life insurance and sickness disability for some 2200 employees of the company.

Indirectly it bears on the suggestion made by Doctor Coffey, and it occurs to the editors that it might be worth

the while to secure an expression of opinion from members of the California Medical Association on the desirability or possibility of instituting some kind of an organization composed of doctors who would be interested therein, and which organization would work out somewhat as a mutual life insurance company.

The editors of CALIFORNIA AND WESTERN MEDICINE would be very glad to have an expression of opinion, either pro or con, from any members of the California Medical Association who might be interested in this subject.

* * *

The item concerning the Standard Oil Company, to which reference was made, was an article by Charles H. Haskell, a well-known financial writer, and is quoted from as follows:

"The Standard Oil Company of California, with 22,313 employees December 31, last, is one of the largest employers west of the Mississippi River. For this reason, and due to the reputation employees of this company have of being sold on their company, several matters effecting the relations of the company with its employees are of general interest.

"The payroll of the Standard Oil Company of California for the year 1926 amounted to \$45,458,564; an average of \$177.31 per month per employee. This is a high average salary.

"For some years there has been in effect a plan covering pensions, life insurance and sickness disability. Under the pension plan, employees reaching 65 years of age with twenty years of service with the company, or employees reaching 55 years of age with thirty years of service with the company, may be retired with a liberal pension for life.

"These pensions range according to age, service and salary, from \$300 per year up to 75 per cent of the average annual salary for the five years preceding retirement.

"Life insurance is provided for all employees, ranging in amount from three months' salary to one year's salary, depending on length of service, and such life insurance protection costs the employee nothing.

"Employees having sickness are entitled to full salary for periods up to twenty-six weeks, depending on length of service.

"During the year 1926 payments made by the company covering pensions, life insurance and sickness disability benefits amounted to \$1,213,813."

* * *

It is not many years ago when it would have been impossible to have found such an item in a newspaper. For the good and sufficient reason that, a few years ago, big corporations had not learned how profitable it is to care for employees.

Perhaps doctors in similar manner may awaken one of these days to take better care of themselves.

Why not write CALIFORNIA AND WESTERN MEDICINE your viewpoint on this?

Shall Barbers Be Licensed?—Members of the California Medical Association, who have had access to the complete files of the new bills presented during the present (forty-seventh) session of the California legislature, are in a position to know what great versatility our state senators and assemblymen show when it comes to proposed additions to the statute books of our state.

Thus Assembly Bill No. 102 is "An act to create a board to examine and license barbers"; Senate Bill No. 99 is "An act to create a state board of barber examiners"; and Senate Bill No. 61 is "An act to regulate the occupations of hair dressers, cosmeticians, etc., and to create a state board of cosmetology," etc. Any readers of this journal who would be interested in perusing these bills may obtain copies by making request for copies to the secretary of the Senate or Assembly, the Capitol, Sacramento.

* * *

Gerard Harrington, writing of the modern day trend of state examining boards on most everything, gives expression to some facetious thoughts that may be relaxing to some of our readers. Discouraging on the modern-day trends, he writes:

"Students of the American scene will overlook some

magnificent material if they miss the current deliberations of our barbers, who are now to be seen rising as a man to don the robes of chirotonsory. They are shouting for their rightful share of service. They clamor for a professional degree. . . .

"Any issue of *The Master Barber*, official organ of the Associated Barbers of America, which has for its slogan 'It Pays to Look Well,' is a delight to the cynic. Consider this, from E. A. Rainey: 'All short-haired periods in the world's history have marked great progress in the sciences, literature, and the arts. All periods of long hair have been periods of barbarism.'

"We're trying to find out how short hair is conducive to greatness, how it affects the cells of the body and the atoms and electrons. . . .

"Perhaps in that last sentence we have the foundation of a great new contribution to the art of chirotonsory which will qualify the barber to cure many ills now treated by the chiropractor. . . .

"My own barber looks forward eagerly to the dawn of universal chirotonsory, and his reasons are quite simple. . . . He believes the day will come when Americans will become accustomed to consider that they are not buying a haircut, but are paying for service, with a vague course of esoteric professional training implied in the background. Furthering this purpose, the barber trade organizations in every state of the Union are now lobbying for the passage of laws requiring all barbers to be licensed or denied the right to do business. These bills carry provisions for "examinations," and are now actually law in several states. One sees the analogy to the medical diploma. And this writer at least foresees the return of a long-haired period.

"The day is not far off when the universities of the country will found their chairs of Chirotonsory, and we may also see the day when the street-sweepers will become asphalticians, fulfilling the prophecy of Ralph Barton's caricature."

Los Angeles Experiment in Hospital Treatment of So-Called Middle Class About to be Inaugurated.—Under the caption "Middle Class Gets Expert Treatment"—"Good Hope Association Fund of \$2,000,000 Makes Possible Minimum \$1 a Day Charge," there appeared in the *Los Angeles Examiner* of April 2, the item below, which though somewhat meager in details concerning the plan and experiment about to be tried at the Good Samaritan Hospital of Los Angeles, should nevertheless be of considerable interest to physicians of the Southwest.

In essence, the plan seems to be an endowment fund to a semi-private hospital, the income to be used in caring for citizens needing hospitalization, but whose financial means are insufficient for such treatment.

It would seem that the major donation will be the voluntary service donated by members of the medical profession. An endowment of \$2,000,000 will net an annual interest return, if conservatively invested, of about \$100,000. This endowment presumably has been largely raised through contributions from lay citizens.

When the Good Hope Association prints its annual report it is to be hoped that on the books an average charge for the operations and visits by physicians will be tabulated for every patient treated through the fund. In that way lay contributors will be in a position to know the money value of the services donated by the medical and surgical staff of the fund. It is highly desirable that no false modesty be permitted to prevent such a presentation of facts and figures.

The clipping referred to follows:

"That lower half of the middle class (financially only is meant), who heretofore has only been able to indulge in the indoor sport of being ill at the cost of a catastrophe to their bank accounts, can now have all the care and illustrious specialists that are the resort of the money kings.

"This is due to the early opening (April 10 or thereabouts) of the Good Hope Hospital Association.

"There have been only two classes of folk who could be seriously ill without extreme danger of at the same time going broke; the very rich and the paupers.

"The wealthy could pay the enormous fees that existed

before hospitals were standardized and the cost of having the most exalted talent in medicine and surgery.

"For the very poor, public institutions existed which by and large gave the best of care and skill.

"But the white collar fellow found himself in a concentrated fire of financial high explosives which left him bare.

"Dr. Ernest E. A. Bryant and A. C. Balch developed the idea of changing this sad condition of life. They went to work to establish a \$2,000,000 fund the income of which is to be used to aid that white collar class in illness without putting them in undue state of dependence, avoiding the specter of charity.

"The fund has been raised.

"The Good Samaritan Hospital officers offered to set aside what wards were needed in the addition to that hospital now about completed, and on or about the tenth of this month applicants will be received by a social worker at the hospital and if found eligible will be admitted.

"They will pay whatever they can afford, a dollar, or two, or three; in extreme cases no charge will be made.

"For this they will be given just the same quarters, skilled doctors or surgeons, the best of nurses, and all drugs, x-ray pictures, and other details that John D. or Judge Gary would have.

"The fund is handled by a corporation without stock and nonprofit-making.

"There is no discrimination to be allowed; if a case calls for a private room and a special nurse, that will be done.

"All that is required from patients is to show the representative of the fund the charge per day that they can comfortably pay. This is placed at a minimum of \$1.

"And that charge includes every possible service that can be rendered.

"For instance, the surgeon that otherwise would charge, say, \$1000, and be justified in the charge, will perform his services, and all you pay is your dollar or two or three dollars a day while you are in the hospital.

"The doctors and surgeons have responded to the opportunity with the eagerness that always marks those professions when called on; they will receive no pay, but will be glad to give their skill.

"The fund's income will meet the hospital charge, which is to ask of the fund only the exact cost of what is provided. The difference will be made up by the fund.

The President Signs the Lye Bill—Congress passed the Federal Caustic Poison Bill, March 2, and the President signed it on the following day. It is now a law. Thus after years of agitation by the American Medical Association there is a federal law that requires household packages of lye, ammonia, carbolic acid, oxalic acid, and other caustic substances named in the law to be distinctly labeled "Poison," with instructions as to emergency treatment in case of accident. It is limited in its operations, of course, as under the Constitution it must be, to interstate and foreign commerce and commerce in the District of Columbia and other places under the exclusive control of the federal government. To afford time for packers and shippers of the substances covered by the law to meet its requirements, the penalty is not to be enforced for any violation occurring within six months after the approval of the act. Enforcement of the law is entrusted to the Secretary of Agriculture. The substances covered by the federal act and the cautionary label required by it correspond with those required in intrastate commerce by the laws of Minnesota, Nevada, New Jersey, Oregon, South Carolina, Vermont, and Virginia.

The American Medical Association recognized the danger of household packages of lye and the necessity for protective legislation forty-three years ago, when it adopted a resolution, in 1884, recommending that Congress and the several state legislatures enact laws requiring lye and preparations of lye to be labeled "Poison" and to be sold "with the same discriminations as to their sale as are now applied to other articles of a deadly nature." So far as the records show, nothing was done to make the resolution effective. Dr. Chevalier Jackson revived the subject in 1910, in his address as chairman of the Section on Laryngology and Otology, on "Esophageal Steno-

sis Following the Swallowing of Caustic Alkalis: The Necessity for Compulsory Labeling of Poison Sold by Grocers." Again, action was not taken to make effective the lesson. In 1918 Dr. Thomas Hubbard of Toledo, Ohio, read a paper on "Certain Traumatic Lesions of the Esophagus," before the Section on Laryngology and Otology, and, on motion of Dr. Wendell C. Phillips of New York, a resolution was adopted providing for the appointment of a committee to prepare a statement recommending legislation to provide for the labeling of caustic preparations. The committee was appointed and has been continued from year to year ever since. Its activities received the official endorsement of the House of Delegates in 1923, which then authorized the Board of Trustees to take such action as might be necessary to procure the enactment of the proposed legislation. The activities of this committee, with the support of the several state associations to which appeals have been made from time to time and with the cooperation of the Bureau of Legal Medicine and Legislation, resulted in the federal law that was finally enacted. Similar laws had already been enacted in fourteen states. With so much of the field covered, it should not be difficult to procure the enactment of like laws in other jurisdictions where they are needed.

Assistance in procuring the enactment of the federal law was freely given by the Lye Section of the American Grocery Specialty Manufacturers' Association, the members of which control a large part of the output of household packages of lye, the article chiefly affected by the law. Now that this law is in force, it is not unlikely that other trade interests engaged in interstate commerce within the field covered by it will cooperate in promoting state legislation. If they do not, they may find themselves subject to unfair competition within the state, since packages shipped in must be labeled so as to show the inherent danger, whereas packages prepared within the state, in the absence of a state law, need not be so labeled.—*Jour. A. M. A.*, March 19, 1927.

Comparison of Figures of Licentiates in California Counties, and of Membership Totals in Respective County Medical Societies—In the editorial columns of this issue is an appeal for a membership drive in each of the component county units of the California Medical Association. That editorial was written because the figures given below, which were taken from the directories of the California Board of Medical Examiners and of the California Medical Association, warrant such an appeal. For our own better information, these totals were compiled and, in the main, may be taken as fairly accurate. Since they may serve a purpose and be an aid to county committees which will take up this work, they are here printed. It may be of interest to print the revised figures at the close of the year.

The column to the left gives the directory totals of county society membership in the respective counties, the column to the right gives the number of licensed physicians in the corresponding counties.

| Name of County | County Society | Licentiates |
|--|----------------|-------------|
| Alameda County..... | 377 | 660 |
| Amador County..... | 3 | 7 |
| Butte County..... | 19 | 33 |
| Calaveras County..... | 4 | 9 |
| Colusa County (included in Yolo)..... | | 7 |
| Contra Costa County..... | 31 | 55 |
| Del Norte County..... | 2 | 4 |
| El Dorado County..... | 4 | 4 |
| Fresno County..... | 110 | 140 |
| Glenn County..... | 8 | 15 |
| Humboldt County..... | 32 | 41 |
| Imperial County..... | 20 | 24 |
| Inyo County..... | | 7 |
| Kern County..... | 49 | 67 |
| Kings County..... | 11 | 14 |
| Lake County..... | 2 | 11 |
| Lassen County (included in Plumas County)..... | | 9 |
| Los Angeles County..... | 1533 | 3103 |
| Madera County..... | 8 | 15 |
| Marin County..... | 20 | 26 |
| Mariposa County..... | 3 | 5 |
| Mendocino County..... | 15 | 20 |

| Name of County | County Society | Licenses |
|------------------------------------|----------------|----------|
| Merced County | 17 | 23 |
| Modoc County..... | | 8 |
| Mono County..... | 1 | |
| Monterey County..... | 23 | 38 |
| Napa County..... | 22 | 38 |
| Nevada County..... | 6 | 11 |
| Orange County | 86 | 121 |
| Placer County | 28 | 30 |
| Plumas-Lassen Counties..... | 14 | 16 |
| Riverside County..... | 43 | 72 |
| Sacramento County | 123 | 148 |
| San Benito County..... | 7 | 12 |
| San Bernardino County | 94 | 144 |
| San Diego County | 182 | 320 |
| San Francisco County..... | 813 | 1338 |
| San Joaquin County..... | 84 | 104 |
| San Luis Obispo County..... | 15 | 25 |
| San Mateo County..... | 25 | 40 |
| Santa Barbara County | 63 | 77 |
| Santa Clara County..... | 121 | 201 |
| Santa Cruz County | 35 | 50 |
| Shasta County..... | 10 | 12 |
| Sierra County | 2 | 5 |
| Siskiyou County..... | 17 | 25 |
| Solano County..... | 17 | 39 |
| Sonoma County..... | 45 | 66 |
| Stanislaus County..... | 37 | 47 |
| Sutter-Yuba Counties..... | 10 | 24 |
| Tehama County | 10 | 15 |
| Trinity County | 1 | 1 |
| Tulare County..... | 36 | 59 |
| Tuolumne County..... | 5 | 11 |
| Ventura County..... | 18 | 35 |
| Yolo County..... | 25 | 23 |
| Yuba County above with Sutter..... | | 16 |

Over in the Empire State, a young man recently became ill with smallpox. This is the statement of Dr. Mathias Nicoll, Jr., State Commissioner of Health, who continues:

"All members of his family were immediately vaccinated with the exception of an older brother, who refused on the ground that he was in perfect health and didn't believe that vaccination prevented smallpox. He was told that while he had a perfect right to his personal opinions, he had been in contact with a case of smallpox and must, therefore, in accordance with the provisions of the Sanitary Code, either be vaccinated or be quarantined for a period of twenty days. He chose the latter alternative, though only after vigorous protest.

"The controversy aroused much interest in the village and town where this 'conscientious objector' lived and he had many sympathizers, especially as time went on and he remained apparently well. Before the twenty days were up, however, this nonbeliever in vaccination was taken ill and within a few days developed a typical case of smallpox with pustules covering the entire face, which became so greatly swollen that his eyes were nearly closed. It was one of the most severe cases seen in this state for some time. All the other members of this family who were properly vaccinated after exposure to the first case of smallpox escaped the disease."—*Ohio Health News*.

Secretary Work Establishes Fund—Hubert Work, Secretary of the Interior, who was Charter Day speaker at the University of California this year, not only refused the usual honorarium given the Charter Day speaker, but added to it his personal check to make the amount \$1000 and donated the sum to the University of California for the establishment in honor of his deceased wife, of the Laura Arbuckle Work Memorial Loan Fund. This gift was announced to the Regents of the University at their regular monthly meeting in the office of the Governor in the State Building, San Francisco, by President W. W. Campbell. The loan fund is to be available to women students who are within a year or two of the completion of their preparation for service as teachers. Mrs. Work was a teacher.

CALIFORNIA MEDICAL ASSOCIATION

W. T. McARTHUR.....President
 PERCY T. PHILLIPS.....President-Elect
 ROBERT V. DAY.....Vice-President
 EMMA W. POPE.....Secretary

CONTRA COSTA COUNTY

The monthly meeting of the Contra Costa County Medical Society was held at the Hotel Los Medonos in Pittsburg, March 26, 1927. A very splendid and instructive paper on "Reconstructive Surgery of the Hand," together with lantern slides, was given by Dr. Sterling Bunnell of San Francisco. Doctor Bunnell emphasized the excellent results that are now able to be obtained by tendoplasties and repair of peripheral nerves in the upper extremities. Much credit is due Doctor Bunnell for his scholarly presentation of his subject.

Those present: D. C. Wiser, L. C. Gregory, Selby Marks, Edith Wiser, Pittsburg; J. Beard, Martinez; J. M. McCullough, W. A. Rowell, Crockett; S. N. Weil, Selby. S. N. WEIL, *Secretary*.

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SACRAMENTO COUNTY

The Gold Room of the Sacramento Hotel was the setting for the fifty-ninth annual banquet of this society. Howard C. Naffziger came from San Francisco to address the gathering on "Reminiscences of War Surgery," but chose for his subject, instead, "Some Interesting Researches on Variances of Blood Pressure."

There were seventy-six seated at the banquet tables. Among the guests from out of town were Max Rothschild and H. C. Warren of Belmont, Fred Fairchild of Woodland, Francis Stolle of Dixon, Smith McMullin of Yuba City, Perley Bradford of Galt, and E. Meyers of Roseville. Other guests from our own city included Jack Flynn, E. L. Slack, A. J. Affleck, Roy A. Green, Thomas R. Haig, and Raymond Wallerius.

BERT S. THOMAS, *Secretary*.

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SAN BERNARDINO COUNTY

The San Bernardino County Medical Society held a regular meeting April 5, 1927, at the County Hospital in San Bernardino.

The meeting was called to order by the secretary in the absence of the other officers at 8:15 p. m. Minutes of the previous meeting were read and approved.

Owing to illness, Doctor Moseley could not give his report of Council activities, but we were fortunate in having with us our state councilor, Dr. Lyle C. Kinney of San Diego, who made a most welcome and encouraging address.

The program of the evening was then entered upon. The paper of the evening on "Plastic Surgery," illustrated by lantern slides, by Dr. H. O. Bames of Los Angeles was discussed by Dr. A. T. Gage.

There were about twenty-eight members present. The following members were admitted to the society by unanimous vote: Mary L. Zener, C. E. Counter, Cyril B. Courville.

Meeting adjourned at 9:45 p. m.

E. J. EYTINGE, *Secretary*.

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SAN DIEGO COUNTY

The monthly dinner of the San Diego Medical Society held on Tuesday evening, March 8, was distinctly an unique affair in its annals. After the coffee, President Harding, in a few graceful remarks, complimented the society in possessing such a powerful group of highly trained medical women who have proved their efficiency in many ways. He then turned the meeting over to Dr. Martha Welpton, who as president of the San Diego Medical Women's Club, treated the society to the following excellent program; a program given entirely by

women, presided over by a woman, and devoted exclusively to reporting health and welfare work done by organized women through organized women's clubs largely in the interest of women and children, the program concluding with a few words of approval by two outstanding medical women of world repute.

The keynote of the various talks and reports listened to was the influence of San Diego medical women, when organized and cooperating harmoniously upon the public health and social welfare needs of the community. Through cooperative work on the part of its women members the San Diego County Medical Society serves the organized groups of lay women throughout the county, the members of the medical women's club acting as the connecting link between organized medicine and the organized women's clubs of the county, the latter representing more than 8000 of the intelligent and progressive women of the county.

This has gradually been brought about during the past six years by these medical women members accepting the chairmanships of committees doing public health work and welfare work among the women and children. With the backing of the powerful memberships of these clubs this group of hard-working medical women, with the endorsement and aid of their county medical society, has been able to intelligently suggest to city councils and the board of supervisors plans of action along health and welfare work which have been of distinct value to the community.

When the Sheppard-Towner nurse was apportioned to San Diego it seemed wise to the medical society to have their medical women direct her work rather than leave this to lay control, and this has been the policy followed during recent years by the Women's Medical Club of San Diego and the San Diego County Medical Society, to which its members belong.

Their work stands as a working model for county societies elsewhere to consider. Is it not better to direct intelligently from the inside the efforts of lay organizations along health and welfare lines than to criticize their mistakes when not properly guided? There is room for a national program along these lines.

The following is the Tuesday evening program:

Introduction by President Harding.

Report on Medical Social Service, by Dr. Charlotte Baker.

Report on Medical Social Work, by Dr. Frances M. Allen.

Report on Public Health Matters in the County W. C. T. U., by Dr. Alice H. Crandall.

Report of Public Health and Social Welfare Committee of the San Diego Civic Center and the Public Health Committee of the La Jolla Woman's Club, by Dr. Angeline Martine.

Report of the Child Welfare Committee of the San Diego County Medical Society, by Dr. Marjory J. Potter.

Report of the San Diego County Health Committee, by Dr. Lillian B. Mahan.

Report of the City of San Diego Public Welfare Work, by Dr. J. E. Tow.

Report on the Psychiatric Work for Parent Teachers' Association and Other Social Agencies, by Dr. Anita M. Muhl.

Report on the Public Health Work Done Officially by the City and County Boards of Health, by Dr. Olive B. Cordua.

Report on the San Diego County Medical Women's Club, by Dr. Martha Welpton.

ROBERT POLLOCK.

On Friday, April 1, the new Zoological Hospital and Research Institute in connection with the San Diego Zoological Society was dedicated with appropriate ceremonies in the new building in Balboa Park. The meeting was well attended by physicians and other scientists who had

been invited to a preview of the buildings and equipment. The exercises were presided over by Dr. R. J. Pickard, the chairman of the administration board, and brief talks were made by Dr. M. C. Harding president of the San Diego County Medical Society; Dr. H. M. Wegeforth, president of the Zoological Association; and Mr. J. C. Harper, representative of Miss Ellen Scripps, largely through whose generosity the buildings were made possible. The address of the evening was made by Dr. Charles M. Kofoed, professor of biology at the University of California, who spoke very entertainingly on the biologic relationship and interdependence between man and the lower animals. Doctor Kofoed is always assured a good reception when he comes to San Diego.

This institution promises to be of unique value to the scientists as well as the lover of animals. It has a well-equipped hospital for the care of all sick or injured members of the ever increasing "Zoo" family. In addition to this there are well-equipped laboratories for research work in biology, chemistry, physiology, and the other sciences. Here can come the scientist who wishes to combine his pleasant vacation at San Diego with a little quiet research work on his pet subject. Here is placed at his own disposal a quiet room with laboratories and trained technician available. Near by, in the same beautiful park, he has access to the large library of general science.

The new institution is under the direction of Mr. Godfil and his assistants; while it is loosely associated with the State College through Prof. L. F. Pierce, one of its directors. The Board of Directors consists of the following: R. J. Pickard, M. D. (chairman), pathologist; H. M. Wegeforth, M. D., president of the San Diego Zoological Society (ex-officio); Mr. Godfil, acting director of the Institute (ex-officio); C. P. Baxter, M. D.; E. F. F. Copp, M. D.; Prof. L. F. Pierce, Mr. Louis J. Gill, Mr. W. C. Crandall.

The Mercy Hospital staff meeting for March presented an unusually interesting program.

Dr. P. B. Wing reported on his past forty cataract operations, and presented two of these cases to illustrate unusual results.

Mr. L. E. Carlson gave a brief, informal talk on the new physiotherapy equipment in Mercy Hospital, explaining briefly what they are prepared to do, and invited the members on behalf of the Sisters to visit and inspect this recently completed department.

Dr. C. P. Baxter outlined briefly the opportunities presented to scientific workers by the research department of the new Zoology Institute, and extended an invitation to the society to visit the new buildings.

Dr. Donald Wood gave an extended review of our advance in the treatment and prevention of the infections of childhood, discussing diphtheria, scarlet fever, measles, whooping cough, cerebrospinal meningitis, and poliomyelitis. This was a comprehensive, well-presented digest of present-day practice, and as such was discussed by Doctors Thornton, Belford, Hough, and Sharp.

A goodly delegation drove over to Redlands to attend the sessions of the Southern California Medical Association, which were fully up to its usual high standard of excellence.

ROBERT POLLOCK.

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SAN FRANCISCO COUNTY

San Francisco County Medical Society—The general meeting of the society on April 5 was dedicated to the memory of Lister, and it was delightful to hear Dr. Thomas Huntington speak understandingly and perfectly of the spirit of Lister as it is abroad in the hospitals of today, saving so many lives and so much of suffering.

Dr. Arthur Dean Bevan of Chicago then spoke upon "The Surgery of the Spleen," presenting in a forceful manner the history of splenectomy and its present limitation to injuries of the spleen, hemolytic jaundice, and Banti's disease.

Following the meeting, refreshments were served in

the ballroom of the new home of the society. It is hoped to make light refreshment a regular occurrence following the general meeting each month, this meeting regularly being held on the second Tuesday of the month at 8:30 p. m.

San Francisco Hospital Colloquia—Surgery—Thursday, 9 o'clock, April 21, 1927, General Surgical Clinic, Doctor Rixford.

Medicine—Friday, 11 o'clock, April 22, 1927, Duodenal Ulcer, Doctor Hill.

Gynecology and Surgical Specialties—Saturday, 8:30 o'clock, April 23, 1927, General Clinic, Doctor Girard.

J. M. READ, *Secretary*.

The following are reports of staff meetings received from various hospitals of San Francisco:

St. Joseph's Hospital Staff, San Francisco, held an interesting meeting April 13, Dr. A. S. Musante presiding. Reports from the physiotherapy department and on interesting cases were made by Drs. W. J. Lynch, F. J. Herborn, William Quinn, Louis Overstreet, and Samuel Barmak. Dr. P. H. Pierson spoke on "Progress in the Diagnosis and General Treatment of Tuberculosis." He showed a model consisting of transparent glass panes, superimposed upon one another with one-half inch intervals, upon which were outlines of the lungs with colored markings indicating lesions. Mounted photographs on a vertical axis showing horizontal sections through successive levels of the chest were also demonstrated and compared with radiographs. The diagnosis between phthisis and chronic interstitial pneumonia after influenza was explained, and the visualization of lesions back of the heart and in the domes of the diaphragm indicated. Basal involvement with no tubercular bacilli in the sputum, after repeated examination of the concentrated sediment, often speaks against tuberculosis. Sanocrysin and Spahlinger's antitoxin and vaccine were announced as the latest hopeful agents.

Dr. Leo Eloesser continued on "Surgical Attack of Chest Tuberculosis." A medical pneumothorax, if possible and complete, is preferable to a surgical collapse, but with pleural adhesions it is necessary to operate. Unilateral lesions are most appropriate. Can bring about decreased movement by affecting diaphragm (phrenectomy) ribs (thoracoplasty) or both. Results are one-third cured, one-third improved, and one-third unimproved. Lantern slides showing the different types operated upon and results were shown. Lobectomy was not attempted in these cases.

Dr. Ethan Smith discussed "Modern Management of Bone and Joint Tuberculosis." In the diagnosis lues must be suspected where several joints are involved and after puberty. Nisserion infections must be remembered. The treatment of tubercular joints is based on immobilization, but the latter is often harmful, because of the pressure involved in securing it. A little movement with the transmission of the pressure so as to relieve the lesion is best. In the spine, operation should be used before much deformity exists, and the special indications for the Albie or Hibbs operations studied. Dr. W. T. Cummins dwelt upon intradermal tuberculin in diagnosis of children and Dr. F. C. Keck gave recent observations on heliotherapy in Europe.

The program for May 11 follows:

"Progress in Hospital Standardization," Sister M. Agnes; "Recent Activity of the American College of Surgeons," Dr. William Quinn; and "Improvement of Staff Conferences," Dr. A. S. Musante,

The regular bimonthly conference at St. Mary's Hospital was called to order by Dr. T. J. Lennon, president of the conference.

Dr. Philip Arnot presented a statistical report on thirty-three cases of labor induced by the Voorhees bag. The incident of the use of the bag with Doctor Arnot was

8.4 per cent. Of these 60 per cent were in primiparas and 40 per cent in multiparas.

He enumerated some of the disadvantages of bags as follows:

Bags disengage the head and delay engagement. This does not seem to be the case if expulsion of bag is followed by moderate uterine stimulation. Occasional rupture of the membranes occurs. This is rare if operator is careful. Prolapse of cord is a rare result of their use. Their use necessitates the constant attendance of the physician.

The technique may be summarized as follows:

Anesthesia is not necessary. Visual exposure of the cervix with dilatation by the finger. Introduction of the bags. Moderate stimulation of uterus by massage and small doses of pituitin, especially after expulsion of the bag.

The following reasons were given for intervention:

Forty-two per cent for hypertension and albuminuria; 6 per cent for placenta previa; 3 per cent for separation of the placenta; 6 per cent for convenience of the patient; 33 per cent for false labor with a firm cervix; 6 per cent for premature rupture of the membrane; 3 per cent for being overdue.

The length of time after insertion of bag to the onset of labor averaged 3.8 hours. The time the bag remained in the cervix averaged ten hours for primiparas and 8.1 hours for multiparas.

The length of labor from insertion to delivery: primiparas, 18.8 hours; multiparas, 10.8 hours.

Fetal death occurred in 21 per cent. Of these four were macerated, in one the heart was not heard, and in one death was due to forceps. In short, 3 per cent were directly traceable to the bag.

Maternal mortality was 3 per cent, due to pneumonia and sepsis.

Instrumental delivery was required in 33 per cent of all the cases.

Weight of the infants born averaged 6.6 pounds.



SAN JOAQUIN COUNTY

A regular meeting of the San Joaquin County Medical Society was held Thursday evening at 8 p. m., April 7, 1927, at the local Health Center, 129 South American Street, Stockton. Twenty-four were in attendance. Those present were: Drs. J. W. Barnes, E. L. Blackmun, J. F. Blinn, Winifred E. Biethan, C. O. Bishop, C. A. Broadus, Fred P. Clark, F. J. Conzelmann, J. F. Doughty, C. F. English, E. C. Griner, C. D. Hollinger, J. P. Hull, Grace McCoskey, R. T. McGurk, F. B. Maggs, F. S. Marnell, Dewey R. Powell, G. H. Roherbacher, G. H. Sanderson, F. B. Sheldon, Margaret H. Smyth, C. V. Thompson, A. H. Van Meter, Mr. Flint, senior medical student, University of California, visitor, of San Francisco, and Dr. E. I. Bartlett of the University of California Medical School as guest and speaker of the evening.

The meeting was called to order at 8:30 p. m., Dr. J. W. Barnes presiding. The minutes of the previous meeting were read and approved. The committee on admissions reported favorably for membership of Dr. Percy B. Gallegos of Stockton. In accordance with the constitution, the Chair declared Dr. Percy B. Gallegos duly elected an active member of the society.

The transfer of Dr. S. W. Cartwright from the San Benito County Medical Society was read.

Action: Moved by secretary, and seconded by Dr. A. H. Van Meter that Dr. S. W. Cartwright be accepted as a member. Carried.

Invitations from the California Tuberculosis Association to attend the meeting of the Association May 6, at 6:30 p. m., at a dinner in the Hotel Senator, Sacramento, were read.

Action: It was moved by Dr. D. R. Powell, and seconded by Dr. A. H. Van Meter, and carried, that we accept the invitation and urge all members of the society

to attend the meeting of the California Tuberculosis Association.

The secretary was instructed to mail the names and addresses of the members of the society to the executive secretary, E. Tate Thompson of the California Tuberculosis Association, so that she can send cards directly to the members to enable them to make their reservations for dinner. The president introduced Dr. E. I. Bartlett of the University of California Medical School, who spoke on the subject of "Breast Conditions."

Not considering abscess or lactation breast, which the physician will easily recognize, tuberculosis which is uncommon and syphilis which is discovered by the Wassermann test, and a few other rare diseases, we are left with four important breast conditions which the physician must be able to distinguish for the benefit of his patients: (1) Painful breast; (2) breast hypertrophy; (3) benign tumors; (4) malignancy.

The painful or symptomatic breast is usually due to endocrine disturbances. The patient is excited, restless, and worried. On inspection and palpation only breast glands are found. To recognize the condition one must know what the normal breast feels like. Psychotherapy is always indicated and glandular treatment may be needed.

Breast hypertrophy is so named by Doctor Bartlett because patients come to the physician for lumps which are not found in the normal breast. The lumps may be tender or not. They are overgrowths of glandular or fibrous tissue. The lumps may consist of masses of fat or cysts. This condition is the cobblestone breast of Bloodgood. But we may find only one lump. The breast gland opens by its duct near the nipple; the ducts are arranged like spokes of a wheel, and one, a few, many, or all the ducts may be blocked. Breast hypertrophy feels to the palpating hand like an area of thickening.

Treatment—Leave this condition alone, unless the cysts annoy the patient, in which case let the fluid out with a needle. Cysts often contain growths of papilloma, a pre-cancerous lesion; a large percentage of cancer of the breast comes from papilloma in cysts or ducts. In cysts the fluid is clear; in cancerous papilloma, the fluid is bloody. The color of the fluid, however, is not an index to the type of cyst. The presence of cysts does not mean that there is no cancer. If cancer is found complete operation is necessary.

Benign solid tumors have a tough capsule and never become malignant. The benign tumor is encapsulated; is raised above the breast gland proper. It exudes between the branches of the glands and follows the path of least resistance. Benign tumors are frequently multiple, but may be single.

Malignancy means cancer or sarcoma. Sarcoma is rare; it spreads by the blood stream, and the patient is soon at rest.

We are only sure of cancer when the tumor involves the skin and causes nipple changes. Unilateral retraction of the nipple, dimpling of the skin over the tumor means cancer. Cancer is a buried tumor. Cancer arises, not from tumor of the breast or cell remnant. It arises from a duct or alveolus and carries the gland with it. Many cancers are, however, not associated with retraction or dimpling. The treatment for cancer whether early or small is complete operation. The earlier the cancer the more thorough the operation must be. You are excusable in cutting corners in an advanced case of cancer, but not in early cases. In an advanced cancer, a sloughing, fetid mass, cut or shave it off and let the x-ray man do the rest.

The complete operation involves a wide area of skin; go to the clavical, lower angle of scapula posteriorly, over the pectoral muscles on the other side, down to the rib margin; take out the pectoral muscle and axillary content on the same side, and remove the advential sheet of the vein.

Any woman over the age of 25 years may have cancer. One-half of the apparently benign growths prove to be cancer and show retraction of the breast. The surgeon must have a knowledge of the appearance of the growths. He must know a benign tumor, cancer, or hypertrophy when he cuts into it. The patient and the surgeon must be prepared for the operation; the patient must be asleep

with a general anesthetic, and the surgeon must demonstrate to the internist by a radial incision his findings, for any duct that is cut becomes blocked and is a potential danger. The surgeon must have present a pathologist to make a microscopical examination. The difference in the three conditions is as plain as day, but may not be apparent to the untrained eye. If there is no capsule it is a cancer. Cancer is an infiltrating growth. Breast tissue is very white, cancer is dull grey. When a woman has a breast condition the physician must know within two weeks' time what the condition is. The common mistake of the internist is on the side of conservatism. He has known of the breast condition of his patient for some time, but has not pronounced it cancer until far advanced. Thereafter he refers all his patients with breast condition to the surgeon for operation. The surgeon may also make mistakes; he may take out a benign tumor or do a partial operation, and later have the disappointment of seeing his patient die of cancer. He may then decide to do a complete operation at the first complaint of pain in the breast.

Carcinoma of the breast is relatively common. The diagnosis is comparatively easy; and after the diagnosis is established the treatment is definitely determined—complete operation. The cautery has no advantage over the knife, and one cannot strip the vein with a cautery. The speaker characterized the electric cautery as a delightful plaything. Its virtues are exaggerated by men who do not understand the complete operation.

Doctor Bartlett appreciates the value of radium and x-ray in pre- and postoperative cases. The treatment halts the progress of the cancer, but neither x-ray nor radium cure.

The members asked many questions about the serum treatment and diagnosis coagulation diathermy, Koch cancer cure, Italian serum test, and the Glover treatment, which the doctor answered in a very practical and instructive way. A diagnostic method that does not give 100 per cent information is not efficient. Exploration is necessary, he concluded. The diagnosis is the beginning of treatment.

There being no further business the Chair declared the meeting adjourned.

FRED J. CONZELMANN, *Secretary*.



SANTA BARBARA COUNTY

The regular monthly meeting of the Santa Barbara County Medical Society was held at the Cottage Hospital on April 11, with President H. E. Henderson in the chair.

There were present fourteen members of the society and eight visitors.

The minutes of the previous meeting were read and approved.

The scientific program consisted of the following:

Report of a Case of Uremia, Dr. W. D. Sansum. Discussed by Doctor Nuzum.

Report of a Series of Goiter Cases, Dr. S. Robinson. Discussed by Doctors Pierce, Nuzum, and Sansum.

Correction of External Nasal Deformities, with lantern slides, Doctor Lewis.

At the close of the scientific program the society went into executive session, and Dr. Milton J. Geyman was unanimously elected to membership.

There being no further business the meeting adjourned.

WILLIAM H. EATON, *Secretary*.



SANTA CRUZ COUNTY

At the regular meeting of the Santa Cruz County Medical Society held in Watsonville, April 1, Dr. Alfred Phillips was elected president of the Santa Cruz County Society, to fill the vacancy caused by the death of Doctor Musgrave, for the year 1927.

Dr. Ehler Eiskamp was elected first vice-president. Dr. Cowden was elected delegate to the state convention, and Dr. Jesse Farmer was elected alternate at our last meeting held during the year 1926.

DEAN S. WOODARD, *Secretary*.

SISKIYOU COUNTY

The regular meeting of the Siskiyou County Medical Society was held on March 27 at Dunsmuir. Those present were Drs. C. W. Ankele, William G. Tucker, Charles Pius, Charles W. Nutting, and Harold A. Morse.

The members and their wives met at dinner at Hotel Weed. At the regular meeting following, Dr. W. G. Tucker was elected alternate to Dr. S. S. Kalman, delegate to the California Medical Association. The society voted to send telegrams to our Senator and Assemblyman protesting against the passage of Senate Bill No. 60 and Assembly Bill No. 178, and urging them to use their influence to prevent the passage of these bills.

A case of Foreign Body in the Lung was presented by Doctor Ankele. General discussion followed.

HAROLD A. MORSE, *Secretary*.

CHANGES IN MEMBERSHIP

New Members—Alameda County—Harry H. Appledorn, Paul C. Kurz, Everett D. Ivey, Hermann G. Lohmann, Roy F. Nelson, Oakland.

Contra Costa County—Edith P. Wise, Pittsburg.

Los Angeles County—Boris Arnov, Harvey A. Berkes, H. Sutherland Campbell, Marcus E. Crahan, Don S. Dryer, Harry Koplin, William A. Kristensen, Robert B. McKinney, Orville N. Meland, Clay E. Mullinax, Ernest V. Neumann, Chester W. Packard, William Rambo, John J. Richstein, Allan Ross, Arthur H. Schwartz, Louis F. X. Wilhelm, Los Angeles; Walter B. Palmer, Frank D. Sweet, Long Beach; William O. Sheller, Culver City; Sylvester H. Welch, Glendale; William W. Worster, San Gabriel.

San Francisco County—Henrietta Duggan, Rose G. Wong, La Verne Wright, San Francisco.

San Diego County—A. L. Barr, Paul R. Brust, San Diego.

Santa Barbara County—Richard D. Evans, Robert W. Johnson, William E. Vandever, Milton J. Geyman, Santa Barbara.

Transferred Members—Jau Don Ball, from Alameda County to San Francisco County.

Sanford W. Cartwright, from San Benito County to San Joaquin County.

A. Edward Dart, from San Joaquin County to San Francisco County.

Leland W. Ellis, from Kern County to Los Angeles County.

William P. Scott, from Kern County to San Francisco County.

John A. Wahlen, from Orange County to Santa Barbara County.

L. W. Wuesthoff, from San Luis Obispo County to Contra Costa County.

Resigned Members—Clarence W. Kellogg, Bakersfield.

Deaths—Hasson, David W. Died at Buena Park, March 31, 1927, age 80. Graduate of the University of Iowa College of Medicine, 1877. Licensed in California in 1893. Doctor Hasson was an honorary member of the Orange County Medical Society, the California Medical Association, and the American Medical Association.

Mills, Henry W. Died at San Bernardino, March 26, 1927, age 54. Graduate of the Royal College of Physicians and Surgeons, 1895. Licensed in California in 1903. Doctor Mills was a member of San Bernardino County Medical Society, the California Medical Association, and a Fellow of the American Medical Association.

Smalley, Clifford A. Died at Los Angeles, April 12, 1927, age 50 years. Graduate of the Medical College of Indiana, 1904. Licensed in California, 1904. Doctor Smalley was a member of Los Angeles County Medical Society, California Medical Association, and a Fellow of the American Medical Association.

COUNCIL MINUTES APPROVED AT THE ONE HUNDRED AND SIXTY-FIFTH MEETING OF THE COUNCIL

Minutes of the One Hundred and Sixty-Third Meeting of the Council of the California Medical Association—Held in Conference Room No. 3 of the Los Angeles Biltmore, Los Angeles, California, Saturday, September 18, 1926, at 10 a. m.

Present—Doctors Day, Phillips, Hamlin, Kinney, Kiger, DeLappe, Shephard, Catton, Kress, Shoemaker, Gibbons, Curtiss, Pope, and General Counsel Peart.

Absent—Doctors McArthur, Bingaman, Coffey, Rogers, and Peers.

1. **Minutes of the Council**—The secretary read the minutes of the 159th, 160th, 161st, and 162nd minutes of the Council incorporating a few minor changes in phraseology.

Action by the Council—On motion of Kress, seconded by Kinney, it was

Resolved, That the Minutes of the 159th, 160th, 161st, and 162nd meetings of the Council, as amended, be approved.

2. **Minutes of the Ninety-First Meeting of the Executive Committee**—The secretary read the minutes of the ninety-first meeting of the Executive Committee.

Action by the Council—On motion of Kress, seconded by Kinney, it was

Resolved, That L. S. Schmitt, University of California, be informed that the practice of state medical societies publishing the proceedings of the annual meetings in a separate volume has practically been discontinued. Nearly all the large state societies maintain their own journals, and these papers appear therein. The cost of such a separate publication would also throw too serious a drain upon the state society's income.

Action by the Council—On motion of Phillips, seconded by Day, it was

Resolved, That the minutes of the ninety-first meeting of the Executive Committee be approved, as read.

3. **Minutes of the Ninety-Second Meeting of the Executive Committee**—The secretary read the minutes of the ninety-second meeting of the Executive Committee, as mailed to all councilors.

It was the sense of the Council that the minutes of the ninety-second meeting of the Executive Committee be not approved until further discussion had ensued on certain matters contained therein.

4. **Minutes of the Ninety-Third Meeting of the Executive Committee**—The secretary read the minutes of the ninety-third meeting of the Executive Committee, as mailed to all councilors.

In connection with the item on the "Publication of the Revocation of Physicians' Liquor Licenses," it was pointed out that such a list had already been published by the American Medical Association.

Action by the Council—On motion of Kress, seconded by Phillips, it was

Resolved, That on behalf of the Board of Councilors, the secretary write the American Medical Association expressing the California Medical Association's viewpoint that it is not to the best interest of the profession that such list be published by the American Medical Association.

Action by the Council—On motion of Gibbons, seconded by Phillips, it was

Resolved, That the minutes of the ninety-third meeting of the Executive Committee, as read, be approved.

5. **Financial Statement**—This is on file in the secretary's office for the information of all members.

6. **Better Health**—Morton R. Gibbons requested that item 27 on the docket be given first consideration. Letter received from Walter B. Coffey, chairman of the Executive Committee of Better Health Incorporated asking that discussion of the interest of the Association as a stockholder of *Better Health* be postponed, was considered.

After full discussion, on motion duly made and seconded, it was

Resolved, That the question of Better Health Incorporated be not deferred, but be considered as the first order of business.

The secretary then presented financial statement, arti-

cles of incorporation, by-laws and minutes of the Executive Committee of Better Health Incorporated, submitted by Better Health Incorporated at the request of the Board of Directors of the Los Angeles County Medical Association.

Action by the Council—On motion of Phillips, seconded by DeLappe, it was

Resolved, That the data received from Better Health Incorporated be referred to a special committee consisting of Drs. Morton R. Gibbons, chairman; George H. Kress and Hartley F. Peart, for their consideration and their report to the Council at the afternoon session as the first order of business.

7. History of the California Medical Association—Doctor Harlan Shoemaker reported that the Los Angeles County Medical Association had appointed Dr. John W. Shuman on behalf of that society to collect all historical material available for elaboration into a history of the medical profession of Los Angeles County; that several publications had appeared throughout the state, which, if collected, would make a very worthwhile volume.

8. Permanent Convention Headquarters—See footnote.

9. Editorial "What Is Public Health?"—Correspondence from Doctor Kress and Doctor Musgrave on the editorial "What Is Public Health?" was read.

Action by the Council—On motion of Kress, seconded by Phillips, it was

Resolved, That a committee consisting of Drs. Joseph Catton and Fred R. DeLappe be appointed to investigate the whole matter and bring in a report to the Council at the afternoon session.

10. Contact with Hawaiian Medical Society—Letter from Doctor McArthur regarding the possibility of contact with Hawaii, was read. Doctor Gibbons reported on the general character of medical conditions in Hawaii and stated that the Hawaiian doctors seemed anxious to form contact with the California Medical Association and were planning to request such affiliation.

Action by the Council—On motion of Phillips, seconded by DeLappe, it was

Resolved, That the committee on enlarging the scope of CALIFORNIA AND WESTERN MEDICINE be continued and that inasmuch as it was the intention of the Hawaiian society to request contact with the California Medical Association at a later date, no action be taken at this time.

11. Dealers' Commissions—Correspondence from the editor regarding granting of commissions on subscriptions to CALIFORNIA AND WESTERN MEDICINE, was read.

Action by the Council—On motion of Kress, seconded by Kinney, it was

Resolved, That the editor be authorized to give the usual commercial commission for subscriptions (approximately 25 per cent) to new dealers or lay agents who secure subscriptions.

12. Invited Guests—Correspondence from Doctor McArthur regarding invitations to Drs. W. W. Keen and Frank Billings to participate in the annual program, was presented.

It was the sense of the Council that the invitations extended to Doctors Keen and Billings by Doctor McArthur, be approved.

13. Committee on Medical Practice Act—Dr. George H. Kress, chairman of the Committee on the Medical Practice Act, stated that the report given at the 161st meeting of the Council, April 1, 1926, covered the present situation.

Action by the Council—On motion of Catton, seconded by Phillips, it was

Resolved, That the report of the Special Committee on the Medical Practice Act be accepted and the committee be continued.

14. Committee on Legislation—Discussion was had on the formation of a committee on legislation to handle the work formerly cared for by the League for the Conservation of Public Health.

15. Noon Adjournment—Upon motion duly made and seconded the meeting adjourned until 2 p. m.

16. Public Health Centers—Dr. J. L. Pomeroy, County Health Officer, Los Angeles, outlined the work being done

by the Public Health Centers in Los Angeles and stated that in his opinion and in the opinion of many of his colleagues the editorial "What Is Public Health" contained too sweeping a condemnation of public health centers. Doctor Kress pointed out that the editorial referred only to some centers and did not presume to include all centers, and that the article had met with the approval of the majority of the councilors. Doctor Kress stated that the Council was glad to have the viewpoint of Doctor Pomeroy on the matter.

Action by the Council—On motion of Kress, seconded by Day, it was

Resolved, That the Board of Councilors extend a vote of thanks to Doctor Pomeroy, and that a special committee consider the matter.

At the suggestion of Doctor Kress, Doctor Pomeroy promised to submit a copy of reports of his department or a brief outline or digest to the secretary of the Association for presentation to the committee of which Doctor Catton is chairman, which committee would bring in a report at the next Council meeting.

17. Welfare Work—Dr. Martha Welpton reported that a copy of her report on Welfare Work had been submitted to each Councilor, and she had nothing further to report except that the medical women were in a position to aid in welfare work and were anxious to be placed on committees where they would be allowed to work.

Action by the Council—On motion of Kress, seconded by Catton, it was

Resolved, That the report of Doctor Welpton be submitted to a special committee for investigation and report.

18. What is Public Health—Dr. Joseph Catton, chairman of the committee appointed to investigate the editorial "What Is Public Health" submitted the following report for his committee:

First: Your committee has investigated all the papers.

Second: Your committee finds that there are no personal innuendoes.

Third: The committee feels that Doctor Peers' editorial should not be published at this time, but that Doctor Musgrave and Doctor Peers should consult regarding future publication on the subject in order that certain of the differences of opinion concerning the relations of personal health physicians and public health physicians may be put forward.

Action by the Council—On motion of Phillips, seconded by Kinney, it was

Resolved, That the report of the special committee appointed to investigate the editorial "What Is Public Health," be accepted.

19. Legislative Committee—The question of a legislative committee under discussion when noon adjournment was taken was again opened for discussion.

Action by the Council—On motion of Kress, seconded by Catton, it was

Resolved, That a committee on legislation consisting of five members of the Association be elected by the Board of Councilors. That this committee have power to enlarge its group by the appointment of an advisory state group of not more than fifteen. That this committee keep in touch with all county medical units on legislative matters and with county medical societies' committees and associated public health agencies appointed or existing for such work.

The advisability of the Legislative Committee conferring with the League for this year, was discussed.

Action by the Council—On motion of Phillips, seconded by Kress, it was

Resolved, That the Council nominate and elect fifteen men, from which number the chairman of the Council shall select, after he has conferred with other councilors and society members as he thinks fit, five from the fifteen so elected, naming one as chairman; these five to act as a legislative committee for the California Medical Association.

The following men were duly nominated and elected: George H. Kress, Los Angeles; Morton R. Gibbons, San Francisco; Walter B. Coffey, San Francisco; Junius B. Harris, Sacramento; John Graves, San Francisco; J. C. Yates, San Diego; John Gallwey, San Francisco; Robert V. Day, Los Angeles; William Duffield, Los Angeles;

Cornelius Van Zwalenburg, Riverside; Robert Pears, Colfax; E. L. Mott, Fresno; Harlan Shoemaker, Los Angeles; Fred R. DeLappe, Modesto; Charles Curtiss, Redlands.

20. Special Committee on Legal Matters—The secretary was instructed to continue to furnish copies of the regular annual reports of the Legal Department to the president of the Association, the chairman of the Council, and the chairman of the Executive Committee.

21. Hospital Betterment—The secretary read excerpts from the ninety-second meeting of the Executive Committee recommending the appointment of a hospital betterment committee of the California Medical Association stated that Doctor Ophüls, Doctor Graves and Doctor Magan constituted the former Committee of the League for the Conservation of Public Health on Hospital Betterment. Mr. Peart pointed out that the hospital betterment activities were a source of support to *Better Health*, and as the Association is a stockholder in the corporation this should be considered. Doctor Phillips suggested that the committee be named the Committee on Institutions, Organizations, Education, Hospitals, Legal Medicine, Clinics, Group Medicine, and Other Activities of Medical Economics (Committee on Medical Activities).

Action by the Council—On motion of Kress, seconded by Gibbons, it was

Resolved, That a committee on medical activities (institutions, organizations, education, hospitals, legal medicine, clinics, group medicine, and other activities of medical economics) consisting of five members be created; that the Council shall nominate and elect ten members from which number the chairman of the Council shall select five, naming one as chairman; these five to act as a Committee on Medical Activities for the California Medical Association.

On motion duly made and unanimously carried, the following ten men were elected by the Board of Councilors: Percy T. Magan, Los Angeles; William E. Musgrave, Santa Cruz; John H. Graves, San Francisco; Fred R. Fairchild, Woodland; William Ophüls, San Francisco; Fred R. Gundrum, Sacramento; S. B. Van Dalsem, San Jose; Lyell C. Kinney, San Diego; Dwight F. Trowbridge, Fresno; H. B. Reynolds, Palo Alto.

Action by the Council—On motion of Catton, seconded by Day, it was

Resolved, That this Committee on Medical Activities (institutions, organizations, education, hospitals, legal medicine, clinics, group medicine, and other medical activities) be charged with the duties delegated to the Section of Medical Economics, Education and Public Health, established May 12, 1921, and that this committee be instructed to prepare a program for that section. That the county units be notified that the Association now has a section for such matters.

22. Proposed Committee on the Constitution—The advisability of having a committee on revising the constitution was brought up.

Action by the Council—On motion of Kress, seconded by Day, it was

Resolved, That the chairman of the Council appoint a committee on the constitution consisting of nine members: three from the bay region; three from Los Angeles region, and three at large, naming a subchairman for each section and a chairman of the group as a whole.

23. Minutes of the Council—Discussion was had as to the possibility of earlier publication of Council minutes.

24. Councilor for the Eighth District—The chairman advised that it was necessary to elect a councilor for the eighth district to fill the unexpired term of the late Dr. James H. Parkinson.

Action by the Council—On motion of Phillips, seconded by Catton, it was

Resolved, That Junius B. Harris, Sacramento, be elected councilor for the eighth district to fill the unexpired term of Doctor Parkinson.

25. Death of Doctor Parkinson—The chairman of the Council advised that he would appoint a committee to draw up resolutions on the death of Doctor Parkinson for presentation at the next Council meeting.

26. Better Health—Morton R. Gibbons, chairman of the committee appointed to investigate the data submitted to the Council by *Better Health* Incorporated in accord-

ance with the request of the Executive Committee, advised the Council that the information submitted did not permit of a comprehensive understanding of the situation, and the members of the committee suggested that a proper analysis with more detailed information be prepared for final submission to the Council.

Action by the Council—On motion of Kress, duly seconded, it was

Resolved, That the report of the special committee be adopted; that the committee submit a further report at the next meeting of the Council; and that Doctor Hamlin and Doctor Catton be added to this committee.

27. 1927 Annual Meeting—The chairman advised that the Executive Committee had tentatively set the date of the 1927 annual meeting as April 25 to 28, 1927, for approval by the Council.

Action by the Council—On motion of Phillips, seconded by DeLappe, it was

Resolved, That the date of the next annual meeting as set by the Executive Committee, be approved.

28. Medical Society of the State of California—The practice of furnishing regular annual reports on the status of the medical society of the state of California to members of the Council, who are also trustees for the society, was approved and ordered continued.

29. Report of the A. M. A. Committee on Relief in Medical Disaster—Action on the report of the American Medical Association Committee on Relief in Medical Disaster was deferred.

30. Leaves of Absence—The question of whether or not leaves of absence granted by county societies automatically entailed leaves from the State Association was brought up. It was the consensus of opinion that the Constitution and By-Laws of the California Medical Association provided that a member of a county unit lost his membership in the California Medical Association when the county unit failed to send forward the state society's annual tax for such member. Furthermore, that with loss of state society membership went loss of membership in the American Medical Association, since the American Medical Association is made up of the members of the state medical societies.

It was felt that all county units should be informed of this fact, and in order to avoid embarrassing notices to members who had secured local or county leaves of absence, that county medical societies granting such leaves of absence should promptly forward information to that effect to the office of the secretary of the California Medical Association.

31. National Endowment Fund—Doctor Phillips spoke of the plan of the National Endowment Fund of the physicians' home to care for indigent doctors, and stated that in his opinion the plan was impracticable. On motion duly made and seconded, the matter was tabled.

32. Bunnell Memorial—Information concerning the conditions of the Bunnell Memorial, Yosemite, as furnished by Doctor Van Zwalenburg, was presented to the Council.

It was the sense of the Council that Dr. Emmet Rixford be asked to communicate with the Yosemite Park superintendent requesting that the present situation be rectified.

33. Leppe v. Pahl and Tice—A case of alleged malpractice on the part of a member of the Association was considered and details thereof discussed.

34. Moran v. Copeland—A case of alleged negligence on the part of a member of the Association was considered and details thereof discussed.

35. Lehto v. Bunnell—A case of alleged negligence on the part of a member of the Association was considered and details thereof discussed.

36. Proposed Amendment to the Veterans' Act—The secretary presented a letter received from Olin West, secretary of the American Medical Association regarding the proposed amendment to the Veterans' Act.

Action by the Council—On motion of Catton, seconded by Shephard, it was

Resolved, That the letter regarding the proposed amendment to the Veterans' Act be referred to the Committee on Legislation.

37. Stitching the Journal—The secretary stated that

the editor was desirous of having the journal stitched instead of stapled.

Action by the Council—On motion of Kress, seconded by Day, it was

Resolved, That the Council authorize the stitching of the journal.

38. **Syndicated A. M. A. Journal Articles**—General discussion was had, and the matter was referred to the Executive Committee.

39. **Questionnaire**—Correspondence from the A. M. A. on certain activities of the Association was discussed.

Action by the Council—On motion of Kress, seconded by Catton, it was

Resolved, That such information as is requested be given the American Medical Association because the A. M. A. is constantly offering cooperation with state medical societies, and that under those conditions it is proper that we reciprocate.

40. **Journal Filler**—General discussion was had on this subject.

41. **Council Meeting**—The question of setting the time and place of the next Council meeting was brought up.

Action by the Council—On motion of Kress, seconded by Phillips, it was

Resolved, That the place of the next Council meeting be fixed at Santa Cruz, and that arrangements and the date of the meeting be left with Doctor Phillips and the chairman of the Council, after consultation with Doctor Musgrave.

42. **Death of Dr. Saxton Pope**—The chairman of the Council read a letter from Emma W. Pope expressing appreciation of the sympathy extended to her at the time of Dr. Saxton Pope's death.

Action by the Council—On motion of Catton, unanimously carried, it was

Resolved, That the chairman of the Council appoint a committee to prepare suitable resolutions on the passing of Dr. Saxton T. Pope, for submission to the Council at the next meeting.

The chairman appointed Dr. George H. Kress to draw up the resolution.

43. **Adjournment**—There being no further business the meeting adjourned.

8. This item deals with a report on the subject of permanent headquarters, which will be published in due time.

Minutes of the One Hundred and Sixty-Fourth Meeting of the Council of the California Medical Association—
(As provided by resolution and written waiver of notice of time and place of meeting, attached hereto, and signed by all members of the Council.)

Held in the English Room of the Palace Hotel, San Francisco, California, Saturday, December 4, 1926, at 10 a. m.

Present—Doctors McArthur, Phillips, Day, Kiger, Bingaman, DeLappe, Shephard, Coffey, Harris, Rogers, Peers, Catton, Kress, Shoemaker, Gibbons, and Pope; and General Counsel Peart.

Absent—Doctors Hamlin, Kinney, and Curtiss.

1. **Call to Order**—In the absence of O. D. Hamlin, chairman of the Council, the meeting was called to order by President William T. McArthur.

2. **Chairman Pro Tem**—On motion of Day, seconded by Catton, it was

Resolved, That inasmuch as the president of the Association had just recovered from an illness, Morton R. Gibbons be elected chairman pro tem.

Doctor Phillips raised the question as to whether this election as chairman pro tem was only until such time as the duties of the chair should be taken over by the regular chairman. Upon advice that such was the case, the resolution carried unanimously.

3. **Notice of Meeting**—Discussion was had as to the sufficiency of notice of the meeting.

4. **Validity of Meeting**—Discussion was had as to the validity of the meeting. Question was eliminated by written consent of all members.

5. **Order of Procedure**—Discussion was had as to matters of procedure.

6. **Permanent Convention Headquarters**—See footnote.

7. **Minutes of the Council**—It was decided that the committee as a whole had not the power to approve Council minutes.

Action by the Council—On motion of Kress, duly seconded, it was

Resolved, That the approval of the minutes of the 163rd meeting of the Council be permitted to lay over until a future meeting of the Council.

8. **Minutes of the Ninety-Second, Ninety-Fourth and Ninety-Fifth Meeting of the Executive Committee**—Action by the Council—On motion of Catton, seconded by DeLappe, it was

Resolved, That approval of the minutes of the ninety-second, ninety-fourth and ninety-fifth meetings of the Executive Committee be referred to the next Council meeting.

9. **Legislative Committee**—The secretary read a letter from Cornelius Van Zwalenburg stating that up to date the Legislative Committee had been unable to organize, and therefore had no report to submit at this time. No action taken.

10. **Committee on Medical Activities**—The secretary informed the Council that Dr. John H. Graves had been appointed chairman of the Committee on Medical Activities, but as yet had not sent in his acceptance. Doctor Coffey stated that Doctor Graves had been ill in the hospital for the past three months, but was on the road to recovery.

11. **Committee on the Constitution**—Dr. George H. Kress, chairman of the Committee on the Constitution reported that his committee had written the American Medical Association for copies of the Model Constitution and By-Laws for State Societies, which would be discussed by each group. The whole committee would then meet and formulate a constitution and by-laws for submission to this Council. The progress report of the committee was accepted.

12. **Welfare Committee**—The report of Dr. Martha Welpton, outlining the proposed plan for the working of the Welfare Committee, was read.

Action by the Council—On motion of Catton, seconded by Day, it was

Resolved, That Doctor Welpton's report be approved, except that all reference to various cults be eliminated; and that it be referred to the Committee on Medical Activities, which has been appointed to handle such matters, for further consideration and such action as might be advisable.

13. **Committee on Medical Practice Act**—Dr. George H. Kress, chairman of the Committee on the Medical Practice Act outlined briefly the status of the work of the committee and submitted the following report:

"1. The committee believe that our present Medical Practice Act will need much study before we will be in a position to recommend an amended Medical Practice Act, and on that account believes that our society should not initiate any amendment.

"2. In case amendments to the Medical Practice Act are initiated by the medical colleges or the State Board of Medical Examiners, these can receive the consideration of the Committee on Medical Legislation and of the Executive Committee, and if such amendments make no radical changes in the law there will be no objection on the part of the California Medical Association to the same being introduced by and supported by the medical colleges and the California Medical Association.

"3. The committee believes that if a medical practice act could be worked out, and the same be carried through an initiative some two years hence, that such a plan of procedure would be worthy of very serious consideration. The disadvantage of an initiative law, namely, the inability to amend the same, could be obviated by having a provision in the initiative Medical Practice Act, whereby it was stipulated that the act passed by initiative could by a two-thirds vote of the legislature of California be amended.

"Such provision would put the California Medical Association in the position where it could block any raid on

the Medical Practice Act that was not of a legitimate character, because it stands to reason that the California Medical Association ought to be able to secure the co-operation of at least one-third of the members of the legislature in fighting vicious amendments.

"On the other hand if after years went by some important desired change that is not now foreseen would seem desirable of incorporation, then by a proper educational campaign with members of the legislature on an issue that was a legitimate issue, it ought to be possible to secure at least a two-thirds vote of the legislature in favor of such an amendment that would be sponsored by the California Medical Association.

"New York has recently passed a new medical law, and this will be worthy of close study. It may be of interest to the Council to know that an amendment that was introduced some years ago by the chairman of your present committee, in conjunction with Doctor Molony of the state board and Mr. Ward, the attorney for that board, which necessitated a \$2 a year tax to practice medicine in California, and which at that time was introduced in order to provide funds for such purpose, has seemingly worked out to be a very beneficial measure, and has been incorporated in the New York Medical Practice Act. It has been found that such a law is almost absolutely necessary if a State Board of Examiners is to keep a proper check on the persons who have the legal right to practice within the state, and there is no other substitute so efficient as this, and that is why New York and other states have adopted this amendment, even though the \$2 per year head tax is in one sense a rather obnoxious thing.

"The chairman of this committee has been in consultation with members of the State Medical Board, and with the medical colleges of California, and at a meeting some months ago held in San Francisco a goodly number of items came up for consideration. For your information it may be desirable to mention these:

"(a) Provision whereby students technically deficient in certain of the requirements in the two premedical years might be permitted to matriculate along lines suggested by the Association of American Medical Colleges. The proposition of permitting students at the end of their two years in medicine proper to take examinations on the work of said two years.

"In addition to taking a great load off the minds of the undergraduates it would take a great burden of extra work off the shoulders of the members of the State Board of Medical Examiners by making it possible for the final papers to be marked more rapidly and permit young doctors to begin practice some months earlier than is now possible in many cases.

"The proposition of having every undergraduate at the end of his four years go into a hospital for at least one year of internship in an accredited hospital.

"(b) Question of having all applicants be citizens of the United States or to have declared their intention of becoming such before being permitted to take the examination for a license.

"(c) Question of recognizing or not recognizing the certificates of the National Board of Medical Examiners.

"(d) Question of requiring only one year of collegiate work or two years of collegiate work as a premedical course.

"(e) Question as to whether or not certain institutions in California should be given the privilege of having their students receive a license without taking the examination of the State Board of Medical Examiners.

"(f) The question of having the Governor appoint members of the State Board of Medical Examiners from three lists submitted by the California Medical Association; by the State Homeopathic Association; and by the State Eclectic Association. These three organizations respectively submitting fourteen—four and two names, the Governor to choose from these said lists seven—two and one name to make up a board of ten.

"(g) The question of giving the members of the State Board of Medical Examiners a better compensation than at present, namely, a fee of \$50 per day instead of \$10 per day, etc.

"The above are simply in the nature of a preliminary report and are presented so that members of this Council may consider them at their leisure, so that when they are

presented in more definite form later on it will be possible to secure a free expression of opinion thereon."

Doctor Kress stated he would submit further data at a later date.

Action by the Council—On motion of McArthur, seconded by Shoemaker, it was

Resolved, That the progress report of the committee on the Medical Practice Act be accepted and the committee continued.

14. Committee on Investigation of Data Submitted by Better Health—Dr. Morton R. Gibbons, chairman of the Committee on Investigation of the Data Submitted by *Better Health*, stated that he would submit a minority report prepared by Doctor Catton and himself, but there was no report of the committee:

"Your committee to investigate data submitted by Better Health Incorporated has the honor to report as follows:

"Investigation of data submitted and other data obtained indicates approximately the following conditions:

"Better Health Incorporated is controlled by the League for the Conservation of Public Health.

"It is a \$250,000 corporation, \$50,000 has been subscribed, \$37,000 paid in. The League received \$50,000 worth of stock as payment for the magazine *Better Health* and for promotion. Mr. Sullivan for promotion and Mr. Peart for legal services and promotion each received \$5000 worth of stock. Twenty thousand dollars' worth of stock is owned by the California Medical Association, gift of Doctor Musgrave.

"The 'investigation of data' did not appear so important to your committee as the fact that the California Medical Association is in possession of stock which is a source of danger to the tranquillity and welfare of the Association. The Association avowedly has no connection with the League. The committee realizes that it was a mistake to accept the gift of Doctor Musgrave. The California Medical Association is in an incongruous position.

"Means of relief from this troublesome situation have engaged the attention of the committee.

"Your committee recommends that the California Medical Association dispose of the stock in Better Health Incorporated now owned by it, and relinquish all connection with that organization with all possible dispatch.

"There are three plans for disposal of the stock which your committee considers worthy of discussion:

"1. Disposal to the highest bidder in the membership of the California Medical Association.

"2. Gift outright to the League for the Conservation of Public Health.

"3. Adoption of means to secure legal dissolution of Better Health Incorporated, to the end that the California Medical Association shall receive its pro rata in cash of the results of liquidation.

"In considering these plans we must remember that Doctor Musgrave made a valuable gift to the California Medical Association in good faith. Any plan of disposal of his gift should meet with his approval. However, it is our understanding that Doctor Musgrave has said that he would be content to have the California Medical Association use the gift as it deems best.

"Whether or not the California Medical Association should profit by the disposal of its stock is the question upon which the decision hinges.

"Your committee believes it would be more fitting to have the transaction clean and have no profit, no regrets, questions, or feeling than to profit from the gift.

"It is not the desire of the California Medical Association to cause injury to *Better Health* journal or corporation. It would not be a credit to the medical profession to have the journal fail.

"To force *Better Health* to pass out of existence would destroy something which the laity gives us credit for.

"It is very doubtful if the California Medical Association could force dissolution of Better Health Incorporated. An attempt would cause needless internal strife and hard feeling in the profession.

"Your committee recommends therefore that the \$20,000 worth of stock in Better Health Incorporated, which is the gift of Doctor Musgrave to the California Medical Association, be given outright to the League for the Conservation of Public Health."

Doctor Kress, member of the committee, stated that the

sentiment of his report was contained in the resolution passed by the Board of Councilors of the Los Angeles County Medical Association.

After full discussion, on motion duly made and seconded, it was

Resolved, That since all members were well acquainted with the contents of the resolution of the Board of Councilors of the Los Angeles County Medical Association, that the committee consider the resolution as read and dispense with the reading.

Doctor Kress asked for information on a number of matters connected with Better Health Incorporated. Mr. Peart was called upon by the chair to inform Doctor Kress and the members of the Council in reference to these matters.

Doctor Coffey spoke of the letter he had sent to the councilors before he went East asking that he be given an opportunity to present a plan he had for creating greater harmony, and stated his request had been denied, and that he did not care to submit the plan at this time. Doctor Kress stated that he would be glad to hear any constructive plan and knew other members from the South felt likewise.

15. Noon Adjournment—At this point the chairman suggested that the committee adjourn for luncheon and that the discussion be continued later.

16. Better Health—The discussion of Better Health Incorporated was reopened by Doctor Kress, who stated Doctor Musgrave was willing to have the Association do as it saw fit with the stock, and in view of this fact and the illness of Doctor Musgrave, Doctor Kress thought it might be well for the Council to give the \$20,000 worth of stock to the League for the Conservation of Public Health.

Action by the Council—On motion of McArthur, seconded by Shoemaker, it was

Resolved, That all stock in Better Health Incorporated owned by the California Medical Association be given to the League for the Conservation of Public Health.

Doctor Shoemaker spoke of the danger of the Association accepting a liability as a minority stockholder. He stated that the original intention in forming the League was to take politics out of the state society, and that *Better Health* had a big place in the field of lay magazines, and was closely associated with the League.

The chairman then called for a vote on the question. Unanimously carried, except that Doctor Coffey asked to be excused from voting owing to his personal interest in Better Health Incorporated, which was granted.

Action by the Council—On motion of Kress, duly seconded, it was

Resolved, That the secretary and the chairman of the Council or the president of the Association be empowered to transfer this stock in regular form and deliver it to the League for the Conservation of Public Health.

17. Permanent Convention Headquarters—See footnote.

18. Bubonic Plague—The secretary read a letter from Doctor Kress requesting that Doctors Ebricht and Dickey be present to inform the Council on the bubonic plague situation. Doctor Kress spoke on the necessity of having a rat-proofing ordinance passed in Los Angeles and the desirability of having the support of the State Board of Health. Doctor Kress stated that a telegram had been received from the State Board of Health expressing their desire to cooperate and stated it would be a very desirable thing to have a letter signed by Doctor Ebricht for the files.

Action by the Council—On motion of Kress, seconded by McArthur, it was

Resolved, That the Council of the California Medical Association endorse the viewpoint of the medical profession of Los Angeles in its efforts to have a rat-proofing building ordinance passed in all port cities of California.

Doctor Ebricht outlined the methods used in handling the plague in 1924, and stated that the State Board of Health had a very competent staff of workers in this field and had been able to handle the situation properly. He stated that so far as a rat-proofing ordinance was concerned the State Board approved of the idea if it was not made unreasonable. He stated that there was no lack of

support between the United States Public Health Service and the State Board.

(Doctor Coffey asked to be excused at this point which request was granted.)

Doctor Dickey then spoke of the work done in the last epidemic and stated that both Oakland and San Francisco had rat-proofing ordinances and the matter should be taken up with the building inspector of Los Angeles. Doctor Dickey said he would be willing to see that copies of the Oakland and San Francisco ordinances were sent to Doctor Kress.

19. Maltreatment of Diphtheria Patients in Los Angeles—Doctor Kress spoke of the desirability of having cultures taken in all throat infections, and outlined a case of maltreatment of a patient in Los Angeles. Doctor Kress then read a proposed amendment to the Medical Public Health Laws.

Action by the Council—On motion of Kress, seconded by Shoemaker, it was

Resolved, That the Committee on Legislation of the California Medical Association be requested to take up this particular matter and that Doctor Parrish, health officer of Los Angeles, be requested to send a full file to that committee for its use, and also that a full file be sent to the State Board of Health; and also that the committee confer with the board in order to bring in a report to the Council.

Action by the Council—On motion of Kress, seconded by Harris, it was

Resolved, That the thanks of the Council be given Doctor Ebricht and Doctor Dickey for coming to this meeting and giving this important information on these matters.

20. Permanent Convention Headquarters—See footnote.

21. Walter Reed Memorial—Correspondence with the medical society of Virginia regarding the appointment of a committee on the Walter Reed Memorial was read. Doctor McArthur stated that he was desirous of receiving permission to appoint such committee.

Action by the Council—On motion of Day, seconded by Catton, it was

Resolved, That the president be authorized to appoint such committee.

22. Industrial Medical Practice—The secretary read the report of Philip Stephens, chairman of the Committee on Industrial Medical Practice on the proposed plan of the Physicians' and Surgeons' Insurance Corporation sponsored by Dr. George W. Goodale.

Action by the Council—On motion of Catton, seconded by Harris, it was

Resolved, That the report be adopted.

23. Journal Filler—A report by the general counsel was made on this subject.

24. Legal Expense—A new allocation was made in this matter based on the report of the secretary.

25. Executive Committee—Doctor Kress stated that the function of the Executive Committee was not clearly defined in the present constitution and submitted a proposed amendment to be included in the new constitution.

26. Printing of Council Minutes—Doctor Kress stated that he believed that the action taken on the deletion of minutes of the Council before publication should be reconsidered. He stated that it would be possible to print the minutes of the Council stating that the minutes were of a certain meeting and were approved on a certain date, which would bring them up to date and would do away with the objection that minutes were dead matter.

Action by the Council—On motion of Phillips, seconded by McArthur, it was

Resolved, That no minutes of the Council be printed until they are regularly approved by the Council.

The secretary then asked if the printing of the report of committees and the chairman of the Council in the proposed special issue of the journal would be debarred by the above resolution. It was the sense of the Council that the reports should not be printed until they were approved by the Council, as changes might be necessary in the original reports.

27. Abstracts of Scientific Papers—The secretary read an excerpt from a letter from Doctor Kress raising the question as to whether or not it should be made obligatory for all essayists to submit an abstract of scientific papers to be presented at the annual meeting.

The secretary advised that the question of publicity had formerly been handled by the League, but that at the last Council meeting a resolution had been passed authorizing the Medical Activities Committee to take over the preparation of the program formerly presented by the League.

Action by the Council—On motion duly made and seconded, it was

Resolved, That that resolution be adopted and that the chairman of the Program Committee be empowered to give this information to the Council or Executive Committee and ask them to pass on it.

28. Technical Specialties Committee—It was stated that the Technical Specialties Committee had not yet had a meeting.

Action by the Council—On motion duly made and seconded, it was

Resolved, That this matter be referred to the Executive Committee or the Council.

29. Affiliated Group Programs—Letter from Albert Soiland asking that the Radiology Section be permitted to invite members of the Pacific Coast Roentgen Ray Society to appear on their program was read. The reply of the secretary stating that such members might appear as invited guests provided the members of the Radiology Section were given proper representation on the program was read.

Action by the Council—On motion of Phillips, seconded by Shoemaker, it was

Resolved, That we concur in the letter of the secretary.

30. Sterilization Procedure—General discussion was had on this matter.

31. Envelopes for Journal—The secretary presented samples of envelopes submitted by the Barry Company and advised that the present envelope used in mailing the journal was made of very soft paper and had not proven satisfactory, and that Doctor Musgrave was desirous of using an envelope made of tougher paper.

Action by the Council—On motion of Day, seconded by Shoemaker, it was

Resolved, That we comply with the wishes of the editor.

32. Public Health Work—Doctor Catton informed the committee that the report prepared by Dr. J. L. Pomeroy, County Health Officer, Los Angeles County, had only been received a few days prior to the meeting and had not had sufficient consideration by his committee. It was the sense of the committee that further time be given for consideration of the report.

33. Death of Doctor Parkinson—Doctor Peers submitted resolutions on the death of Doctor Parkinson which were printed in full in the January issue of CALIFORNIA AND WESTERN MEDICINE.

34. Death of Dr. Saxton T. Pope—Doctor Kress presented resolutions on the death of Doctor Pope which were printed in full in the January issue of CALIFORNIA AND WESTERN MEDICINE.

35. Use of County Hospitals—The general counsel discussed this subject, which was referred to the Executive Committee in conjunction with the general counsel for investigation and report.

36. Expense of Councilors Attending Meetings—Dr. George H. Kress pointed out that for many years the treasury of the California Medical Association had been depleted and that councilors had paid their own pullman and railway fares when attending meetings. He stated that as the finances of the Association were now on a sound basis some provision should be made to reimburse councilors for this expense in the future.

Doctor Kress then presented the following resolutions:

Whereas, The members of the Council in times past, in addition to being away from their professional work, have gladly paid their railroad and other expenses incidental to the quarterly Council meetings, doing this because of the depleted state of the society's treasury; and

Whereas, It has at last been possible to put the finances

of the state society on a sounder basis; now therefore be it

Resolved, That on and after this date, at least the railroad fare and pullman transportation to the Council and Executive meetings be refunded to each member in attendance.

Action by the Council—On motion of Kress, duly seconded, it was

Resolved, That the California Medical Association pay the railroad transportation and pullman expense of all members in attendance at meetings of the Council or the Executive Committee.

37. Waiver of Notification—Necessary waiver of validity of meeting was adopted.

38. Medical Legislation—The secretary presented a leaflet received from the American Medical Association giving pending legislation before Congress.

Action by the Council—On motion of Kress, duly seconded, it was

Resolved, That the leaflet on pending legislation in Congress be referred to the Executive Committee and that such legislation as has the sanction of the Executive Committee be given the sanction of the Association.

39. Illness of Doctor Musgrave and Doctor Hamlin—Action by the Council—On motion duly made and seconded, it was

Resolved, That the Council extend deep sympathy to Dr. William E. Musgrave and Dr. Oliver D. Hamlin in their recent illness, and express the hope that their former health and strength will soon be regained.

40. Adjournment—There being no further business the meeting adjourned.

Footnote—Items No. 6, No. 17, and No. 20 deal with the matter of permanent convention headquarters. This subject is in such form at this time that it is deemed desirable to print details in a later number of California and Western Medicine.

Council Minutes Approved at the One Hundred and Sixty-Sixth Meeting of the Council

Minutes of the One Hundred and Sixty-Fifth Meeting of the Council of the California Medical Association—Held in the English Room of the Palace Hotel, San Francisco, California, Saturday, January 22, 1927, at 10 a. m.

Present—Gibbons, McArthur, Phillips, Day, Pope, Kinney, Kiger, DeLappe, Shephard, Rogers, Catton, Kress, Shoemaker, and General Counsel Peart.

Absent—Hamlin, Bingaman, Coffey, Peers, and Curtiss.

1. Call to Order—The meeting was called to order by the acting chairman, Morton R. Gibbons.

2. Minutes of the One Hundred and Sixty-Third Meeting of the Council—The secretary read the minutes of the one hundred and sixty-third meeting of the Council.

In discussing the resolution passed at the one hundred and sixty-third Council meeting regarding the duties of the Medical Activities Committee, Doctor Kress stated that it was the understanding of various councilors that the Medical Activities Committee should only be allotted such time on the annual program as is generally given a regular section. It was stated that the Medical Economics Committee had formerly been permitted to use the entire morning at annual meetings, and as the Medical Activities Committee had been instructed to prepare the program formerly handled by that committee, it was planning on using the entire morning for the program. Report of Doctor Graves, chairman of the Committee on Medical Activities was read, as well as Doctor Graves' letter to his committeemen regarding the program of the Medical Activities Committee. Doctors Kress and McArthur advised that prominent speakers had already been secured for two general sessions, and as administrative officers' programs occupied one general session the three general sessions were already filled. Doctor Kinney suggested that the functions and duties of this committee be defined and that further discussion of the matter be had under Miscellaneous and New Business.

Doctor Gibbons, acting chairman, then called for a vote on the question of considering medical activities as a sec-

tion and giving it only such time on the program as is generally allotted to a section meeting. Carried.

Action by the Council—On motion of Day, seconded by McArthur, it was

Resolved, That the minutes of the one hundred and sixty-third meeting of the Council be approved.

3. Minutes of the One Hundred and Sixty-Fourth Meeting of the Council—The secretary read the minutes of the one hundred and sixty-fourth meeting of the Council.

It was suggested that Doctor Day's name be eliminated from the resolution referring to letters relating to the gift of Doctor Musgrave. Also that the first sentence under "Bubonic Plague" be changed to read: "The secretary read a letter from Doctor Kress suggesting that Doctor Ebright and Doctor Dickey be present to inform, etc." Also under "Maltreatment of Diphtheria Patients" that the words "Medical Practice Act" be changed to "Public Health Laws."

Doctor Kress spoke of the waiver that had been passed at the last meeting of the Council and stated that as a previous motion to meet as a committee of the whole had never been rescinded he believed it would be advisable to pass a resolution which would legalize all actions taken at that time.

Action by the Council—On motion of Kress, seconded by Day, it was

Resolved, That each and every act, vote and procedure had and taken by the members of the Council, either as a committee of the whole or as the Council, present and acting at the one hundred and sixty-fourth meeting held on December 4, 1926, in the English Room of the Palace Hotel, be and the same is hereby ratified, approved and confirmed and that all acts of officers pursuant to any of the said votes or resolutions be and the same are hereby ratified, approved and confirmed.

Doctor Gibbons called for a vote on the resolution. Unanimously carried.

Action by the Council—On motion duly made and seconded it was

Resolved, That the minutes of the one hundred and sixty-fourth meeting of the Council be approved.

4. Minutes of the Ninety-Second Meeting of the Executive Committee—The secretary advised that the minutes of the ninety-second meeting of the Executive Committee had been read but never formally approved.

Action by the Council—On motion of DeLappe, seconded by Shephard, it was

Resolved, That the minutes of the ninety-second meeting of the Executive Committee be approved as read.

5. Convention Bulletin—Dr. George Kress spoke of the feasibility of printing a convention bulletin which would contain reports of officers, and stated such bulletin could be brought out under the editorship of the secretary. It was stated that the matter would be discussed further at a later hour.

6. Publication of Adopted Reports in the Journal—The secretary asked that a ruling be made on the publication of reports adopted at Council meetings before final approval of the minutes. Mr. Peart and Doctor Shoemaker spoke of the necessity of careful perusal of all reports before publication.

It was decided that the present ruling that all minutes be approved before publication be adhered to.

7. Financial Statements—This is on file in the secretary's office for the information of all members.

8. Revolving Fund—It was pointed out that it would be necessary to increase the revolving fund from \$200 to \$500 in order to take care of the additional expense incurred by payment of transportation expense of councilors attending meetings of the Council and members of the Executive Committee attending executive meetings.

Action by the Council—On motion of Shoemaker, seconded by McArthur, it was

Resolved, That the Revolving Fund of the California Medical Association be increased from \$200 to \$500.

9. Expenses of Members Attending Program Meeting—The Council was advised that question had arisen as to whether or not the expenses of section officers attending the meeting of the Program Committee at Santa Barbara should be paid.

Action by the Council—On motion of Kress, seconded by McArthur, it was

Resolved, That the railroad and pullman fare of section secretaries, or in the event of the absence of the secretary, the chairman of the section be paid for the meeting to be held at Santa Barbara, Sunday, January 30, 1927, and that in the event of the officer attending the meeting by automobile he be allowed the equivalent of the railroad and pullman fare and also that the railroad and pullman fare of the members of the Program Committee and the Arrangements Committee be paid for that meeting.

10. Surplus Funds—The secretary was instructed as to the disposition of certain surplus funds of the Association.

11. Salary of Editor—The secretary read a letter from Doctor Musgrave advising that although he would not accept a salary as editor he was desirous of having the Council fix a salary for the editor which so long as the position was occupied by him would be set up as a special fund for the improvement of the permanent home of the Association.

Action by the Council—On motion of Kress, seconded by Day, it was

Resolved, That the California Medical Association allocate a salary of \$10,000 a year for the editor of the journal, to apply for the year 1926.

Doctor Kress stated that such a salary did not seem excessive for the character of work done by Doctor Musgrave, and that this did not necessarily imply that a future editor would be paid such a salary and was not to be considered as establishing a precedent.

12. Committee on Revising the Constitution and By-Laws—George H. Kress, chairman of the Committee on Revising the Constitution and By-Laws advised that the committee had made a study of the model Constitution and By-Laws of the American Medical Association. He stated that the Constitution seemed to be very well worked up and that with a few minor changes would be applicable to our Association. Doctor Kress stated that he would like to be authorized to have copies of this model constitution printed, including such amendments as seemed feasible for use of the committee and the House of Delegates.

Action by the Council—On motion of Kress, seconded by Day, it was

Resolved, That the special Committee on Revising the Constitution and By-Laws be authorized to have the secretary of the Association expend not to exceed \$100 in the printing of the report and recommendations of the committee so that same may be presented in printed form to the House of Delegates.

13. Medical Practice Act—George H. Kress, chairman of the Committee on the Medical Practice Act stated that he had nothing of importance to report on the Medical Practice Act, but that the recommendations of Dr. W. A. Pusey regarding the minimum educational requirements should be considered. Doctor Kress spoke of the necessity of encouraging young men to practice in rural communities.

14. Medical Activities Committee—The secretary advised that the report of John H. Graves, chairman of the Medical Activities Committee, had been read under the discussion of the minutes of the one hundred and sixty-third meeting of the Council. It was considered unnecessary to reread the report.

15. Committee on Arrangements—Letter from Doctor Duffield, chairman of the Arrangements Committee, was read. Doctor McArthur informed the Council of the status of invited guests for the annual meeting.

16. Walter Reed Memorial—William H. Kiger, chairman of the Committee on the Walter Reed Memorial, advised that he had written to the members of the committee asking that they ask for a donation of \$1 from members in their districts, but as yet no report of collections had been received.

17. Report of Dr. J. L. Pomeroy—Dr. Joseph Catton, chairman of the Committee to Investigate the Report of J. L. Pomeroy, M. D., Public Health Officer of Los Angeles County, stated that the report submitted was a very good one, but he believed someone in the South should be delegated to look after the relationship of public health work in Los Angeles County.

It was the sense of the Council that the report be accepted.

18. **Noon Adjournment**—At this point adjournment was taken for luncheon.

19. This item deals with a report on the subject of permanent headquarters, which will be published in due time.

20. **Communication from Dr. Anna Lyle**—Dr. Anna Lyle appeared before the Council and presented certain facts in connection with the unauthorized use of her name. The matter was referred to the Executive Committee.

21. **Technical Specialties**—Letter from Doctor Ewer, chairman of the Committee on Technical Specialties, was read. It was the sense of the Council that Doctor Ewer's report covered the situation.

It was stated there could be no objection to allowing these societies to meet at the same place as our Association if no mention of them were included in our program except that a loose-leaf program of such societies might be inserted, such leaflet to be printed by the society presenting the program.

Action by the Council—On motion of Kress, seconded by Day, it was

Resolved, That the chairman of the Scientific Program Committee be permitted to insert a loose-leaf program, printed at the expense of the affiliated society with the approval of the Executive Committee, in our regular program, but that no publicity be given such affiliated societies except at the discretion of the editor. Such loose-leaf program to carry notation: "This society aims to work in harmony with the best interests of scientific and ethical medicine, and its program has been submitted in regular form to the Executive Committee of the California Medical Association."

Doctor Shoemaker spoke of the different ethical outlook of doctors and laymen and the danger of including laymen in the Association.

The chairman then called for a vote on the question. Carried, Doctors Shoemaker and Shephard voting No.

22. **Committee on Enlarging the Scope of California and Western Medicine**—Dr. William T. McArthur, chairman of the Committee on Enlarging the Scope of California and Western Medicine presented the following report:

"Your Committee on Enlarging the Scope of California and Western Medicine begs leave to submit the following report:

"There was difficulty in getting the members of this committee together owing to sickness and wide range of residence.

"Only one meeting was held, the minutes of which are herewith appended. Since this meeting the editor has recommended that this committee be discontinued and replaced by a Committee on Medical Publications and Publicity, Scientific and Popular—short name, Medical Publicity Committee, consisting of the following members: President C. M. A., chairman; president-elect C. M. A., vice-president C. M. A., chairman of Council C. M. A., chairman of Executive Committee C. M. A., secretary of C. M. A., editor C. W. M.

"And that the actions and recommendations of this committee pass in writing to the Council for approval and be embodied in the minutes.

"Minutes of the Committee on Enlarging the Scope of California and Western Medicine.

"It was moved by Ewer, seconded by Phillips, that a selected exchange list, numbering to the extent of 150, be authorized; selection to be made by Doctors Eloesser and Musgrave.

"It was moved by Phillips, seconded by McArthur, that the editor's suggestion of a scientific editorial committee be approved.

"Moved by McArthur, seconded by Ewer that a committee of three on CALIFORNIA AND WESTERN MEDICINE, consisting of the editor and two others nominated by the editor, and confirmed by the Executive Committee, be appointed yearly."

It was the sense of the Council that the report on enlarging the scope of CALIFORNIA AND WESTERN MEDICINE be accepted as a progress report.

23. **Legislative Committee**—Letter from Doctor Van Zwahlenburg tendering his resignation as chairman of the

Legislative Committee and advising that Doctor Peers and Doctor Mott had also submitted their resignations was read. Doctor Day spoke of the advantages of having a Legislative Committee.

On motion of Day, seconded by DeLappe, it was

Resolved, That the report of Cornelius Van Zwahlenburg be accepted; also that the resignations of Doctors Van Zwahlenburg, Peers, and Mott be accepted.

Action by the Council—On motion duly made and seconded, Dr. Harlan Shoemaker was designated as chairman of the Legislative Committee. Dr. Michael Creamer, Los Angeles; Dr. Junius B. Harris, Sacramento; and Dr. Joseph Catton, San Francisco, were nominated and elected members of the Legislative Committee.

24. **Committees of the California Medical Association**—Letter from Dr. William E. Musgrave regarding various committees of the California Medical Association was read. It was the sense of the Council that the letter be received.

Doctor Kress then spoke of the committees provided for by the model constitution for state societies approved by the American Medical Association, and stated that several state associations were working under this plan very satisfactorily. Doctor Kress pointed out the advantages of closer relationship between the membership which was brought about by the work of various special committees.

25. **State Legislation**—The secretary presented a résumé of the various bills before the state legislature. Doctor Kress stated that copies of these bills could be secured from the sponsors.

Action by the Council—On motion of Kress, seconded by Rogers, it was

Resolved, That all of these bills be referred to the Legislative Committee and that it be suggested that the committee send out a circular letter through the secretary to all county units giving information as to how copies of these bills could be obtained and asking that suggestions be submitted to the Legislative Committee on all legislation.

Action by the Council—On motion of Kress, duly seconded, it was

Resolved, That the Legislative Committee be requested to make a study of these various bills and submit reports with recommendations to the Executive Committee and that the Executive Committee have power in the name of the Association to sponsor such legislation as may meet with its approval.

26. **Chambers of Commerce**—The question of the advisability of being represented in various Chambers of Commerce was discussed. It was stated that it would be beneficial for all county units to be represented in the local chambers of commerce and that they might incorporate in the Legislative Committee later on.

27. **Correspondence from the American Medical Association**—Certain correspondence from the American Medical Association was discussed.

28. **Better Health Stock**—The secretary advised that the 201 shares of *Better Health* stock formerly owned by the Association had been transferred and delivered to the League for the Conservation of Public Health. Letter from the League expressing appreciation of the gift was read.

Action by the Council—On motion of Kress, seconded by McArthur, it was

Resolved, That upon advice of the general counsel that all technicalities incidental to the transfer and delivery of the 201 shares of *Better Health* stock formerly owned by the California Medical Association had been fully and legally complied with, the Council gives full approval of all actions taken.

Dr. Morton R. Gibbons was informed that it would be in order to return the data submitted by *Better Health* including minutes, articles of incorporation, constitution and by-laws, financial statements and various other confidential matter, as requested by Reginald Knight Smith, M. D., treasurer.

29. **County Hospitals**—Report was made by the general counsel on this subject, which was then discussed.

30. **Western Advertising**—The secretary advised the

Council that the editor was desirous of advertising the journal in *Western Advertising* for 1927. It was the sense of the Council that we comply with the editor's wish.

31. **Supervision of Diagnostic Laboratories**—Discussion was had as to the publication of article by Wilfred Kellogg, M. D., on "The Supervision of Diagnostic Laboratories."

Action by the Council—On motion of Kress, duly seconded, it was

Resolved, That the publication of the article "The Supervision of Diagnostic Laboratories" be referred to the Executive Committee and if in the opinion of the Executive Committee it would be detrimental to publish the article it be not published in the journal.

32. **Membership in County Societies**—Question of rules governing membership in county societies was discussed.

Resolved, That the matter be referred to the general counsel.

33. **Administration of Anesthetics**—The secretary spoke of a letter received from R. D. Brisbane, manager of the San Jose Hospital, regarding the administration of anesthetics by student and graduate nurses.

It was the sense of the Council that the secretary answer the letter in accordance with the resolution passed by the House of Delegates at the forty-seventh annual session, May 12, 1920.

34. **Section Programs**—The secretary advised that some of the section officers were having difficulty securing completed papers for their programs and had asked if it was permissible to print the name of a member who had submitted an abstract but had not completed his paper.

It was the sense of the Council that the secretary of the Association should use her discretion in the matter.

35. **Councilor Visits**—The question of what matters should be stressed by councilors on their visits to county societies was brought up. It was decided that each councilor should use his own discretion in discussing the problems which would be of interest to members in his district.

36. **Monthly Report of Court Litigations**—Letter dealing with this subject was read and referred to the general counsel.

37. **Honorary Members**—Correspondence between Dr. Victor Vecki and Doctor Kress regarding granting of honorary membership to persons outside the state was read. No action taken.

38. **Convention Bulletin**—Doctor Kress suggested that a convention bulletin set up in regulation type be printed. This bulletin to contain such reports as the secretary considered it feasible to print. The secretary and the acting chairman of the Council to prepare the bulletin, which would have the approval of the Executive Committee. It was suggested that the editor might also be consulted.

Action by the Council—On motion of Kress, seconded by Day, it was

Resolved, That such a bulletin be prepared this year.

39. **Yearly Directory**—The question of including various informational data in the annual directory was discussed.

Action by the Council—On motion of Kress, seconded by McArthur, it was

Resolved, That the directory for 1928 contain a two-page digest of rules for the submission of papers at the annual meetings. Also that names of the State Board of Medical Examiners, executive officers of the Association, usual time of meetings, etc., be included.

40. **Presidential Photographs**—Letter from Doctor Musgrave asking that he be authorized to insert a full-page photograph of the president was read.

Action by the Council—On motion of Kiger, seconded by Day, it was

Resolved, That a full-page photograph of the president of the Association for insertion in the journal be authorized.

41. **Physically Handicapped Assembly Bill 185**—The attention of the Council was called to a bill sponsored by the Rotarians providing for the care of the physically handicapped.

Action by the Council—On motion of Rogers, duly seconded, it was

Resolved, That the matter of Assembly Bill 185 providing care for the physically handicapped be referred to the Executive Committee.

42. **Medical Activities Committee**—Doctor Kinney informed the Council that the Medical Economics Section had been allotted a general session for the last four years, and stated he believed the scope and duties of the Medical Activities Committee should be defined. Doctor Kress stated that if the model constitution and by-laws were adopted the function of this committee would be designated as almost entirely hospital investigation work.

Doctor Kinney stated his understanding was that the secretary would write Doctor Graves that the Council had decided not to hold a general session program for medical activities this year, and that the chief function of the Medical Activities Committee is to carry on work of the American Medical Association Bureau of Education and Hospitals.

43. **San Benito County Society**—Doctor Shephard advised that the San Benito County Society was unable to get enough members together to hold meetings. It was suggested that it might be well to have the county affiliate with Monterey or Santa Clara County, or Doctor Shephard might secure speakers for a program for the San Benito County Society and endeavor to get them to hold a meeting in this manner for discussion of their problems.

44. **Adjournment**—There being no further business the meeting adjourned.

Item No. 19 deals with a report on the subject of permanent headquarters, which will be published in due time.

Ten Health Commandments—1. Eat Wisely: Much milk, green stuffs, fruit and whole grain bread; little meat and sugar; avoid alcohol and stimulants.

2. Exercise Freely: Stand and sit erect.

3. Use Your Lungs: Breathe fresh air day and night. Stay in the sunlight a part of every fair day.

4. Be Clean: Wash your hands before you eat; bathe often; clean your teeth morning and night.

5. Feel Well: Don't get overtired; rest is your best friend. a thirty-minute nap in midday is not laziness, but good sense.

6. Be Regular: Don't break your appointments with yourself for meals, sleep, and bowel movements.

7. Keep Your Balance: Hurry and worry serve no man. Play a little every day.

8. Keep Safe: Fight shy of the careless sneezer, spitter, the common drinking cup, and the home with open well or open toilet.

9. Don't Be Too Smart: When you are sick go to bed and call a doctor. Few who do this promptly, die of pneumonia or flu.

10. Be Thrifty: Invest in an examination by a doctor and dentist on your birthday every year; it will pay dividends.—Prepared by Department of Health, Athens and Clark County, Athens, Georgia, B. B. Bagby, M. D., Health Commissioner.

News comes through the European press that the Soviet government of Russia has opened a competition, with prizes, for finding the worst book published during the year. The books will be judged in four classes:

(1) Those considered harmful, such as obscene books or books tending to propagate bourgeois ideals; (2) books containing errors of ignorance or of deliberate misrepresentation; (3) books with bad literary style; (4) books badly edited and printed. The prizes will be awarded to the persons discovering and exposing the books, and writing the best criticisms of them. The Moscow journal, *Na Loteraturnom Postu*, is sponsoring the competition.—*M. J. and Record*.

Archaeology has not yet given up all its secrets, but we know enough to be aware that exaggerated devotion to pleasure and the unequal distribution of wealth keep pace with the decay of states. As the lamps of sacrifice and memory grow dim the shadow of revolutionary change looms large.—Lord Esher, *Manchester Guardian*.

UTAH STATE MEDICAL ASSOCIATION

W. R. CALDERWOOD, Salt Lake.....President
E. H. SMITH, Ogden.....President-Elect
FRANK B. STEELE, Salt Lake.....Secretary
J. U. GIESY, 701 Medical Arts Building, Salt Lake.....
.....Associate Editor for Utah

"UNTO THE LEAST OF THESE"

"Man's inhumanity" is a thing of which we hear much, and in these days wherein the daily press carries the printed record of it *ad nauseam* it sometimes seems more than ever before. Evil news travels fast; good news seemingly slower. But we have noticed that ultimately the good news arrives. In view of the fact, however, that we are hearing so much nowadays of man's general cussedness, it is not a bad time to consider some characteristics that still entitle him to a certain measure of godliness.

Many years ago on a hillside in Palestine a Man of God, a great teacher, was so filled with love for his fellow that he was willing to sacrifice material advantage, even life itself, to mark the path which the stumbling feet of untold millions would later follow. His words, "Inasmuch as ye do it unto the least of these, ye do it unto Me."

His words remind us of the great work which is being done to day in the relief and the cure of "little crippled children."

Out in the northwest portion of our city of Salt Lake a great world-wide organization has brought hope to the hopeless. We refer to the Shriners' ward for crippled children at St. Mark's Hospital. It is not large in size. But as it is the result of a sincere endeavor to relieve suffering and to rehabilitate little unfortunates drawn from deserving and legitimate charity sources, it is as big as the biggest human heart. And because of the work that is there accomplished, and the joy that results from the successes there attained, we feel that in many ways it is as big as God.

Man's greatest joy in life is in constructive service. Man's greatest privilege in life is to serve. And how better can man serve his fellow than to put the "hop" into the hope of crippled little human beings and so alter the entire course of their otherwise shadowed lives?

And so we feel that out at St. Mark's Dr. A. L. Huether and his corps of nurses and assistants are in a measure following out the divine teachings of the Divine Teacher of Galilee, and in their successes they must be deriving some of the almost divine happiness of the Great Physician from their work. One of the best proofs of this lies in the fact that the majority of the little patients at one time or another have expressed their determination to become either doctors or nurses in their future lives. There is an element of both pathos and humor in the fact. (But even a pet dog has been known to lick the hand that hurt it, in seeking to relieve.)

MUTUAL LOSS

In the passing of Dr. W. E. Musgrave, who died at his home in the Santa Cruz mountains of coro-

nary embolus, March 9, not only did CALIFORNIA AND WESTERN MEDICINE, of which he was editor-in-chief, but the State Association of California and the entire medical fraternity sustain a grievous loss.

The lesser elements of the social fabric may, save to those immediate ones who loved them, be easy to replace. But in the case of a man of constructive ability, and farseeing vision, endowed with a love of his profession and an ambition for its advancement the reverse is certainly the case. Men of this type are so few that their removal from their chosen field of endeavor is not easily replaced.

And such an one was W. E. Musgrave, to whose untiring efforts, unflagging energy, and careful planning, CALIFORNIA AND WESTERN MEDICINE owes so much of its present success.

Because of which, the Utah State Medical Association joins with those others who knew and respected Dr. W. E. Musgrave in the deepest and most sincere regret. May those upon whom his mantle has fallen set themselves the high ideal of carrying on the work to which he devoted the last years of his life.

WHY NOT SALT LAKE?

In May the Northwestern Medical Convention will convene at Boise, Idaho. An excellent program will characterize this convention, the speakers being representative members of the profession from all over the country, many of whom journey many miles in order to participate.

From Salt Lake and Utah a number of physicians will attend this convention, among them being Dr. E. F. Root, who at last year's convention was chosen president-elect.

This inspires us to ask why Salt Lake City should not be seriously considered as a possible choice for next year's meeting place. Salt Lake has been selected as a convention city by many organizations both sectional and national during the past few years.

And why not? We have a splendid location, easily reached by rail from all parts of the country. We have scenic attractions within a few minutes or hours' drive from the city hard to equal or to surpass. We have a beautiful city, with plenty of facilities for entertaining the stranger within our gates. We have good hotels and housing qualifications. We have numerous auditoriums wherein any convention short of a national body can well meet. Why therefore should we not invite the Northwestern medical body to be our convention guests in 1928? We should very much like to see Doctor Root authorized to extend such an invitation to the members of the convention at Boise. And we should like to see those members of the Utah State Association who attend the meeting with him back up that invitation in every way in their power. We offer as their slogan the text we have taken for the suggestion: "Why not Salt Lake?"

Monday night, April 4, marked the formal opening of the new Medical Arts Building on South Temple Street. On that night this beautiful \$5,000,000 strictly professional building kept open house and some 1500 of the citizens of Salt Lake passed through its doors and inspected it from basement to roof.

Dr. Fred Stauffer, chairman of the Board of Direc-

tors, to whose efforts so much of the successful termination of the County Medical Society's plan for erecting such a building is due, acted as official host.

A quintet presented musical numbers in the lecture hall of the building, which was also given over to dancing during the evening. Claude C. Cornwall sang several selections and a male quartet from the Hawaiian Islands entertained with numbers of the island music.

Each woman guest was presented with a rose upon entering the building, and on each floor refreshments in the form of punch, confectionery, and cigars and cigarettes were served.

Each of the seventy-nine office suites was kept open by either the holder or one of his attendants who explained the purposes of the office equipment to the many visitors.

Later during the summer it is the purpose of the management to erect a three-deck garage in the rear of the new building, with a sufficient floor space to accommodate not only the cars of the actual business tenants, but to provide a large space for the use of patrons calling at the offices and wishing to park their cars.

Taking it all in all the open house was a huge success, and the building is one of which the city and its promoters may well be proud.

The regular meeting of the Utah County Medical Society was held Wednesday night, April 6, at the Hotel Roberts, Provo. After the usual dinner attended by the members of the local society and their wives, the scientific program was presented.

The paper of the evening was by Dr. George Middleton of Salt Lake City, being a "Consideration of the Goiter Problem."

This is a subject upon which the doctor has been engaged for a long time both from the standpoint of research, and the tabulation of his results. It was highly appreciated by the society members, whose attention was held from the first word to the last.

After a brief business session the society adjourned.

Information is at hand to the effect that Dr. O. J. La Barge has been recommended for appointment in the rank of First Lieutenant in the Medical Department, Organized Reserves. We congratulate the doctor and welcome him into the Reserve.

Dr. A. J. Hosmer, who has been seriously ill, is sufficiently recovered to have left the city for a visit in the East.

Dr. John Z. Brown, chairman of the Program Committee for the coming state meeting in June, has done an immense amount of work in the construction of the valuable program. He announces that he is now in receipt of a sufficient number of acceptances to assure the meeting of an interesting and instructive program by speakers from both the west coast and the east. We advise state members to begin now laying their plans so that they may be able to attend the meeting, which is slated to convene June 23.

Local Physician on Coast Program—Dr. George W. Middleton of Salt Lake is honored with an important place on the program of the annual meeting of the California Medical Association, which meets in Los Angeles, April 25 to 28. Doctor Middleton will present a paper on goiter, which has occupied his time in research work recently. He will leave April 23 for Los Angeles.

Doctor Middleton will appear on the same program with such noted specialists as Dr. Donald Balfour of the Mayo Clinic at Rochester, Minnesota; Dr. Charles Sutherland of the Mayo Clinic, Dr. R. S. Dinsmore and Dr. H. J. Gerstenberger of Cleveland, Ohio; Dr. J. K. Ormond of the Henry Ford Hospital, and Dr. A. L. Bloomfield, professor of medicine at Stanford University.

Dr. J. A. Phipps, chairman of the Committee on Postgraduate Work which will be held in advance of the regular state meeting, announces the dates of the postgraduate program as June 20, 21, and 22. Among the speakers will be Dr. Emmet Rixford of San Francisco, covering orthopedic surgery, and Dr. Palmer Findley of Omaha on gynecology. Indications are that the postgraduate course this year will be of material value, and

it is hoped that the attendance may be correspondingly large.

The regular meeting of the Holy Cross Clinical Association was held in the lecture room of the hospital the evening of March 21, 1927. The principal paper of the evening was given by Dr. George Cochran on the "Insulin Technique in Diabetes." The doctor gave a very interesting talk and discussion of the method of using the insulin treatment, as well as a consideration of the dietary management of diabetics. Following this paper the secretary read a paper on "Dietary Preparation" compiled by the hospital dietitian, and a case presented and patient shown by Doctor Cochran.

At the meeting held Monday, April 18, the program consisted of a "Review of Recent Literature on Scarlet Fever" by Dr. B. E. Bonar, and a paper on "Avulsion of the Patellar Tendon with Operation," presented by Dr. T. William Stevenson, who presented a case for examination and discussion.

Salt Lake County Medical Society (M. M. Critchlow, secretary)—A regular meeting was held at the Salt Lake County Hospital, Monday, March 28, 1927.

In the absence of President W. G. Schulte the meeting was called to order by F. E. Straup, superintendent of the Salt Lake County Hospital. Twenty-seven members and eight visitors were present.

Vice-President W. F. Beer took the chair at 8:30 p. m.

The following program was presented by the members of the hospital staff:

"Renal Colic," by F. A. Goeltz; "Anemia Undiagnosed and Bacterial Endocarditis," by G. F. Roberts; "Two Patients with Iritis," by F. H. Raley; "Pregnancy Complicating Pulmonary Tuberculosis," by Ray Woolsey; "Scarlet Fever Contagion from Post Scarlet Fever Otitis Media," by E. F. Murphy; "Syringomyelia," by G. H. Pace.

The cases were well worked up and were extremely interesting.

The minutes of the previous meeting were read and accepted without correction.

R. Mark Brown and L. C. Warenski were elected to the society, nineteen members voting.

H. P. Kirtley reported for his committee to investigate advertising the society in the telephone directory. The committee thought it best to wait at least six months. John Z. Brown moved adoption of the report. Seconded and carried.

Refreshments were served.

Adjournment at 9:45 p. m.

A second meeting was held in the assembly room of the Medical Arts Building, Salt Lake City, on Monday, April 11, 1927.

Minutes of the previous meeting were read and accepted without correction.

The first paper on the scientific program was entitled "Emergency Surgery," by R. G. Frazier of Bingham, Utah. He described the medical plant of the Utah Copper and gave a summary of the work done in that mine. He described the methods of prevention of accident and the treatments instituted for various emergency injuries. This paper was discussed by J. J. Galligan, E. L. Skidmore, L. N. Ossman, and Captain Duckworth, M. C., of Fort Douglas, Utah.

H. P. Kirtley read an interesting paper on "Endometritis." He described the increasing unpopularity of the term and the method of treatment, namely, curetage, for which he gave definite indications. He gave the classification of endometritis and described in detail the hyperplastic type and the treatment thereof. This paper was discussed by W. E. Hunter, Ray Woolsey, W. L. Rich, and T. B. Beatty.

William T. Ward suggested that the Committee on Public Health and Legislation investigate the activities and methods of the City Board of Health and report to the society. Discussed by J. J. Galligan, Sol G. Kahn, and Fred Stauffer.

Adjournment at 10:05 p. m.

M. M. CRITCHLOW, *Secretary*.

NEWS

Second Course of Morris Herzstein Lectures on Diseases of the Pacific Basin—The second course of two lectures under the Morris Herzstein Lectureship on Diseases of the Pacific Basin Including Tropical Diseases was given by Dr. Tadasu Saiki, director of the Imperial Government Institute for Nutrition, Tokyo, Japan, on the evenings of Friday, April 22, and Saturday, April 23, at 8 p. m. at Lane Hall, Sacramento near Webster Street.

Doctor Saiki's lectures dealt with the following topics: (1) Modern currents in the studies of nutrition. (2) Practical application of studies in nutrition. These lectures were illustrated by moving pictures.

Changes in Academic Staff of Stanford Medical School—Dr. William Ophüls, dean of the Stanford University School of Medicine has furnished the following revision of the academic staff:

Promoted to full professorships in medicine: George D. Barnett (internal medicine), W. Edward Chamberlain (radiology), Henry G. Mehrtens (neurology).

Promoted to associate professorships in medicine: Robert R. Newell (radiology), Harry A. Wyckoff (clinical pathology).

Promoted to associate professorship in obstetrics and gynecology: C. Frederic Fluhmann.

Promoted to assistant professorship in medicine: Lloyd B. Dickey (pediatrics).

Promoted to assistant professorship in pharmacology: Maurice L. Tainter.

Promoted to instructorship in surgery: George D. Brown.

Promoted to associate clinical professorships in obstetrics and gynecology: Karl L. Schaupp, Henry A. Stephenson.

Promoted to assistant clinical professorship in obstetrics and gynecology: Hans von Geldern.

Promoted to associate clinical professorship in medicine: William Hulbert Barrow (internal medicine).

Promoted to assistant clinical professorship in medicine: Norbert J. Gottbrath (neurology).

Promoted to assistant clinical professorship in medicine: Roland P. Seitz (pediatrics).

Promoted to assistant clinical professorship in surgery: Harold A. Fletcher (otorhinolaryngology).

Promoted to clinical instructorships in medicine: James G. Parrott (pediatrics), Stuart C. Way (dermatology).

Promoted to clinical instructorship in surgery: J. Minton Meherin, Robert A. Ostroff, Lorruli A. Rethwilm (anesthesia).

Summer Clinics, Chicago Medical Society, 1927—

Announcements and schedules will soon be ready for the 1927 summer clinics of the Chicago Medical Society, supported by many of the largest hospitals in the city, among them being the Postgraduate Hospital, Chicago Memorial Hospital, University of Illinois College of Medicine, Cook County Hospital, Michael Reese Hospital, Mercy Hospital, Presbyterian Hospital, Jackson Park Hospital, St. Luke's Hospital, Ravenswood Hospital, Mount Sinai Hospital, Francis Willard Hospital, West Suburban Hospital, Evangelical Hospital, North Chicago Hospital, Chicago Lying-In Hospital, St. Joseph's Hospital, Alexian Brothers Hospital, Laboratory of Surgical Technique, Washington Park Hospital, Jackson Park Hospital, Chicago Municipal Tuberculosis Sanitarium, John B. Murphy Hospital. Several of our large laboratories have also agreed to cooperate with us in this great work.

In 1926 we limited registrations to physicians living in Illinois, but our increased facilities make it possible to accommodate many more than last year. Registrations therefore will be open to physicians from other states and to as many as may be accommodated, in the order of their

registrations. Registration fee will be \$10 for each two weeks' course, payable at time of registration, and a physician may register for only one course of two weeks.

Admission will be by card only, issued by the Chicago Medical Society and no registration card will be issued until registration fee is paid.

The first two weeks' course will begin on Monday, June 13, 1927, at 9 a. m., ending Friday, June 24.

The second two weeks' course will begin on Monday, June 27 at 9 a. m., ending Friday, July 8.

This is an excellent opportunity for the medical men of the country to obtain real postgraduate work in some of the best hospitals in the world, and from some of the best clinicians found anywhere.

Schedules will be sent to the 10,000 physicians in Illinois, and announcements will be sent to the American Medical Association, and the several state medical journals.

We will probably be unable to accommodate all those desiring this wonderful clinical course, so it behooves those in Chicago and Illinois to register early if they desire to take advantage of this year's summer clinics. Last year our registrations closed one week after the first announcement.

Meeting of Southern California Medical Association

—The seventy-sixth regular semiannual meeting of the Southern California Medical Association was held in Redlands, March 18 and 19. The members of the profession in that city were most cordial in their efforts to make the meeting a success. Fishing permits and golfing permits were given to those who desired them. The visiting women were entertained Saturday afternoon at the Country Club.

The first session of the scientific program was called to order by Dr. C. T. Sturgeon at 2 p. m., Friday.

Dr. E. J. Kilfoy read a very interesting paper on "Diagnosis and Treatment of Teratoma of the Testicle," stressing particularly the necessity of exact pathological diagnosis so that proper prognosis may be given. Dr. Foster Collins, Los Angeles; Dr. Arthur Kutzmann, Los Angeles; and Dr. Arthur Cecil, Los Angeles, discussed the paper.

The second paper, by Dr. E. J. Eytinge, was read by Dr. Gayle G. Moseley, Redlands, in the absence of Doctor Eytinge. The paper stimulated an interesting discussion concerning the methods of combating ileus. Dr. Arthur Cecil, Los Angeles; Dr. Wright, Los Angeles; Dr. Foster Collins, Los Angeles; and Dr. A. S. Lobingier, Los Angeles, discussed the paper.

The paper of Dr. E. F. F. Copp, La Jolla, San Diego, excited a great deal of interest on account of the thorough and extensive work which had been carried on by the essayist. The paper was discussed by Dr. Bernard Smith, Los Angeles; Dr. Walter Bliss, Pasadena; Dr. Modern, Arrowhead Springs; and Dr. Ross, Pasadena.

Dr. Steele Stewart, Los Angeles, gave up his place on the program to Dr. Norman D. Royal of Melbourne, Australia, who presented motion pictures and gave a fascinating discussion of sympathetic ramisectomy in spastic paralysis. Following this demonstration Doctor Stewart presented patients upon whom he had done ramisectomies, following which the patients had improved markedly.

The evening meeting was a pronounced success, due to the scholarly and pleasing presentation of the papers (1) "Endocarditis," by Harold Hill, clinical professor of medicine, University of California, and (2) "Lung Abscess," by Harold Brunn, clinical professor of surgery, University of California.

The Saturday morning session was called to order at 9:35. Dr. Carlos G. Hilliard, Redlands, summarized "The Problems in Surgical Drainage" concisely, and instructive discussions were given by Dr. Guy Cochran, Los Angeles; Dr. Thomas Burger, San Diego; and Dr. A. S. Lobingier, Los Angeles.

Dr. Moses Schultz read a paper on "Modern Methods of Treatment of Eczemas in Infants and Children." Points in treatment were emphasized. The paper was discussed by Dr. Oscar Reiss, Los Angeles, and Dr. Louis F. X. Wilhelm, Los Angeles.

Dr. William Leake's paper was accompanied with many slides, normal and unusual electrocardiographic tracings. This paper was interestingly discussed by Dr. E. Rich-

mond Ware, Los Angeles; Dr. William A. Swim, Los Angeles; and Dr. R. W. Langley, Los Angeles.

Dr. Hugh Berkeley, Los Angeles, presented "Some Points in Pediatrics of Interest to the General Practitioner." The paper stimulated a great deal of interest, and was discussed by Dr. A. J. Scott, Los Angeles; Dr. Guy L. Bliss, Long Beach; and Dr. E. E. Moody, Los Angeles.

The Saturday afternoon session was called to order at 2 p. m. by Dr. C. T. Sturgeon. "Headache in Relationship to Ovarian Disfunction," by Dr. E. C. Fishbaugh, Los Angeles, opened the session. Its value was stressed by the discussants, who were Dr. W. W. Roblee, Riverside; Dr. Egerton Crispin, Los Angeles; and Dr. Roy Thomas, Los Angeles.

"Haemangioma of the Spinal Cord" was read by Dr. Carl Rand, Los Angeles. Drawings of this unusual condition were shown. The paper was discussed by Dr. Samuel Ingham, Los Angeles, and Dr. Gustav F. Boehme, Los Angeles.

"Surgical Pathology of the Lower Right Quadrant," by Dr. Rea Smith, Los Angeles, and "Lantern Slide Demonstration of Pathology in Lower Right Quadrant," by Dr. Ray Taylor, Los Angeles, were read in sequence on account of their relation. These papers stimulated an active discussion by Dr. Frank H. Folkins, Redlands; Dr. Samuel Robinson, Santa Barbara; Dr. John V. Barrow, Los Angeles; Dr. A. S. Lobingier, Los Angeles; and Dr. William H. Olds, Los Angeles.

The last session of the meeting was held in the Congregational Church, where Dr. John A. Lapp addressed the society on "Medicine and Social Work." During his talk Doctor Lapp brought out very vividly the intimate relation between medicine and social problems, indicating the necessity for "unity in effort." The meeting adjourned at 9:50 p. m.

City's Milk Supply Held Near Perfect—The milk supply of the city of San Francisco obtained the high score of 96.1 per cent as a result of the surprise milk-scoring contest made by the Bureau of Dairy Control, State Department of Agriculture, in this city March 25. This score is 1.1 per cent higher than the previous contest held five months ago.

This improvement in the quality of the milk supply is largely due to the high standard of supervision maintained by the City Health Department under the health officer, Dr. William C. Hassler and Mr. T. P. Lydon, chief milk inspector. The factors responsible for the improvement in milk quality are: strict enforcement of the laws, greater cooperation of the milk dealers themselves, and an increased demand for milk. The grading and labeling of milk are a service appreciated by the public, as the grade label on the bottle cap provides a definite index of the quality of the milk. Graded milk is safe milk, as its quality is guaranteed by the inspecting department backed by the State Department of Agriculture.

Judges officiating in the contest were: S. J. Pearce, Bureau of Dairy Industry, United States Department of Agriculture, and H. E. Ball, market milk specialist, State Department of Agriculture.

Physician Superintendent of Stanford Hospital—Dr. Richard G. Brodrick has been appointed physician superintendent of the Stanford Hospital, and professor of hospital administration in the Stanford Medical School on April 1, 1927.

Doctor Brodrick graduated from Cooper Medical College in 1892. He entered the United States Navy, from which he retired in 1899. From 1908 to 1919 he was connected with the San Francisco Board of Health, and from 1914 to 1919 he served as superintendent of the San Francisco Hospital. From 1919 until 1927 he has been director of the hospitals of Alameda County, California, and consultant to the Highland Hospital. Doctor Brodrick is now president of the American Hospital Association.

Graduate Summer Courses, University of California Medical School—From June 6 to July 2, 1927, postgraduate courses will be available at the University of California Medical School.

Most of the clinical branches will be covered in morn-

ing and afternoon courses, including general medicine, surgery, pediatrics, circulatory diseases, gastrointestinal diseases, x-ray, orthopedics, urology, eye, nose and throat, neuropsychiatry, pathology, laboratory diagnosis.

In addition to these regular courses there will be daily midday clinics and on several evenings a week lectures on general medical topics. These will be open to the medical public.

Announcement of courses will be mailed on request. As many of the courses will have limited enrollment, those who wish to register should make early arrangements.

Dr. W. W. Keen, Philadelphia, 90-year-old dean of American Surgeons, contributed an article "Smallpox, a National Disgrace," to the *Review of Reviews* for February in which he brings out that next to India the United States has more smallpox than any other country, exceeding that of European and Asiatic Russia; that in the year preceding June 30, 1925, the increase of smallpox was 75 per cent and the increase of deaths 628 per cent over 1923; that among the 4,000,000 American soldiers in the World War there were but 979 cases of smallpox and but fifteen deaths; that Massachusetts with 400,000 more people than California, but with smallpox law enforcement, from 1919 to 1924 had but 126 cases of smallpox against California's 26,651 for the same period. California had repealed the earlier laws enforcing vaccination. He concludes: "The experience of centuries and the common sense of every community should insist on universal vaccination."—*Nebraska M. J.*

An award consisting of a medal, a diploma, and a check for \$10,000 has been conferred on Chevalier Jackson of Philadelphia, professor of bronchoscopy and esophagoscopy in the University of Pennsylvania Graduate School of Medicine.

This Philadelphia award is endowed by Edward W. Bok as a yearly recognition for the resident of Philadelphia who, during the preceding year, has brought to culmination a service "calculated to advance the best and largest interests of Philadelphia." Doctor Jackson is the sixth recipient of this award.

The medical profession is gratified to have this honor conferred upon one who stands as having accomplished more in this particular field of practice than any predecessor. He has saved the lives of many patients who but for his skill would have died. His technique is being acquired by others who will be able to accomplish the same results.—*Boston M. and S. J.*

The Boston Medical and Surgical Journal prints the following letter from Arthur J. Cramp, director Bureau of Investigation, American Medical Association:

"A week or so ago you wrote to us for information on the 'International Health Institute, Inc.,' of New York. We are now in a position to give a little more information.

"The International Health Institute is at present, it seems, nothing more than a paper organization. It has for its president one Charles Berminster Munro, who used to be with the Long Beach National Bank at Long Beach, Long Island. Its vice-president is J. C. Lipsey, who is said to have been employed in an executive capacity by A. W. Hyde & Company, Inc., 2061 Broadway, New York City. The secretary is Gerard Warren Proctor, who is assistant sales manager of A. W. Hyde & Company, Inc. The assistant secretary is George W. Smith, whose antecedents we know nothing about.

"Although we requested the International Health Institute, Inc., to give us the names of the incorporators, this request was not complied with. We have learned, however, that the incorporators were Josephine Applebaum, Thomas Le Petri, and Amelia Decker. These three individuals, apparently, were mere figureheads whose names were used by the attorney for the International Health Institute, in order to comply with the state law requiring three adult residents of the state of New York to sign the papers of incorporation.

"The concern states that it intends to render a service similar to that of the Life Extension Institute, with four quarterly physical examinations and four urinalyses, supplemented with a complete course in body-building and

rules of right living.' They state that they will pay a fee to regular registered physicians to make physical examinations, and we believe that the fee they offer is \$3, which, of course, is hopelessly inadequate for any physical examination that is worth while.

"As you know, the journal has taken the attitude for some time that there is no good reason for the existence of these various concerns that sell a urinalysis service, together, in some instances, with a physical examination. The proper person to do such work is the family physician, to whom the patient will be a human being and not a number. The physician who is familiar with the individual and his idiosyncrasies is in a position to give really valuable service in periodic examinations. The service that one gets from commercial concerns that are in this line is, even when honestly given, of indifferent value."

CORRESPONDENCE

A RECENT VISIT TO SOME OF THE CLINICS OF EUROPE

By INA M. RICHTER *

On October 12 we (two other physicians and myself) reached Geneva. We had spent a month touring France in a small car, purchased in Paris, this being by far the easiest, least expensive, and most delightful way of visiting clinics, especially if several are going. Such a small car may be purchased in Paris with the necessary international traveling license for a very reasonable figure, and with a written agreement that the seller will purchase the car at the end of the time for a stated sum agreed on before hand. In this way one may combine pleasure with study and come and go when one pleases, and avoid the disagreeableness and expense of European railroad travel.

I was well fortified with letters of introduction from Dr. K. F. Meyer, Dr. William J. Kerr, and others. The professors abroad received these letters and their bearers with much graciousness, kindness, and welcome.

In Geneva we approached M. le Prof. M. Askanazy at the Institute Pathologique de Geneve. Professor Askanazy is short, stout, voluble, and enthusiastic. He speaks French very rapidly, but has at his right hand his first assistant, Doctor Friedman, who speaks English very well, and will interpret whenever necessary. The laboratories where the students and assistants work are much like ours, as are their methods of teaching. The museum is most complete. In the post mortem room there were four autopsies in progress. There are generally four to six autopsies daily. Post mortem is made on every patient dying in the hospital unless definite refusal is made by relatives within twenty-four hours. The assistants who do the routine work receive respectively the equivalent of \$50, 30, and 16 a month. Nevertheless Professor Askanazy always has plenty of assistants. He welcomes workers from all countries and of both sexes.

We next visited Leysin, a small mountain village, 1250 to 1500 m. elevation, lying in a sheltered valley between two ranges of mountains, and from which the high peaks of the French Alps are easily visible. It was here that Doctor Rollier, in 1903, first started the use of the sun's rays in the treatment of so-called surgical tuberculosis. The establishment now consists of 960 patients with bone, joint, and skin tuberculosis, mostly children. Doctor Rollier does not admit patients with pulmonary tuberculosis, but there are numerous establishments for such further up on the mountain. The patients are housed

in "cliniques," of which there are thirty-two under the care of Doctor Rollier and his assistants. A "clinique" is a small hospital, or nursing home. Every patient has an individual porch or balcony, so placed that he may receive the full benefit of the sun treatment. To emphasize how little surgery is done, Doctor Dillon, Doctor Rollier's assistant (Doctor Rollier was away at the time) stated that there was but one surgeon in the community, and that practically all that he was called to do was an occasional emergency appendectomy or removal of a sequestrum. There are no actual orthopedic operations, and there is no plaster work. In the treatment three things are emphasized: proper nutrition, a high percentage of sunshine, and rest in bed in the proper position with the proper application of pressure. Most of the patients, excepting those where the hip is involved, are in the ventral position. The amount and position of pressure require fine judgment, as does the knowledge of when the patient may get out of bed. The beds all have very hard hair mattresses which are hung so that the position and angle may be readily altered. The children remain out from sun-up to sun-down, except in the very cold weather, and are allowed visitors only when in the open. To this fact and the high degree of immunity at that altitude he attributes the almost total absence of epidemics among the children. The cost per patient varies from about \$1.25 to \$8 or 10 per day for those who can afford to pay more.

At Berne we visited Professor Sahli, who lives in a stately house situated in a garden surrounded by an ornamental iron fence and great iron gates. The little waiting room had the usual pile of magazines on the table (yes, even in Switzerland they keep them when they are a year or two old), but most interesting autographed portraits on the wall. We explained our mission in German, and he answered in very much better English. He told us of a Sahli haemometer which had been used for from eight to ten years in northern Africa, without fading. He said that the acid haematin if properly made would not fade, and very much deprecated the glass standards put out by some manufacturers. These he said were not accurate, and unauthorized.

In Berne we also saw Professor Asher, who, in spite of examinations and many duties, found time to take us about his institute. Here we met two Americans, Doctor Shambaugh and Doctor Curtis, who were working under a grant from the National Research Council. The ground floor of the institute is divided into rooms for research workers, and the upper floor is given over to students. In each research room there was a problem in the process of solution. Doctor Asher is a very enthusiastic and encouraging teacher. He speaks English fluently. Two experiments he was especially enthusiastic about. The first of these he had run through for our benefit. If a frog's heart is perfused with Ringer's solution and atropine the use of caprylalcohol or bile salts will reverse the usual action of the atropine. The demonstration was quite spectacular, and one can see that it might have far-reaching conclusions and applications. But his pet experiment one felt was one in which he demonstrates the presence of glycogen in the brain when it has entirely disappeared from muscles and nerve. "There is no such thing as muscle fatigue," he says, rubbing his palms with glee, and one feels that is quite true of himself at least.

The following day we saw Professor Sahli's medical wards and the surgical wards of Professor de Quervain. One cannot help but be impressed with the extreme orderliness and cleanliness, and facilities for doing accurate work in these services. The thyroid patients, including cretins, are handled on the surgical service. The people are receiving generally iodized salt with benefit, and the school children iodostarine tablets, but Doctor Curtis pointed out that they were probably in some instances getting too much, as they were beginning to see patients with Basedow's disease in increasing numbers, whereas these were formerly a rarity.

It was at the University and Medical School of Zurich, though, that we had our principal feast. This began with an interview with Prof. A. Oswald, on the subject of endocrinology. He has a book on the subject ready for the publishers, and most decided and conservative views as to the efficacy of most of the glandular products on the market. He as much as said that, with the brilliant

* Ina M. Richter (490 Post Street, San Francisco). M. D. Johns Hopkins, 1918; Bryn Mawr, 1908. Graduate study: Intern, Johns Hopkins Hospital, 1918-19. Present hospital connections: Medical staff of the Children's Hospital. Scientific organizations: San Francisco County Medical Society; C. M. A.; Fellow, A. M. A. Present appointments: Instructor in medicine, University, University of California. Practice limited to Medicine. Publications: "A Study of an Autoagglutinin Occurring in a Human Serum," J. H. H. Bull., Vol. 29, 1918.

exception of thyroid extract, there was not one whose action had been proved.

In the Pharmacological Institute Professor Cloetta explained his work with the digitalis preparations. After ten years of labor he has succeeded in isolating two sugar-free derivatives of digitalis in pure crystalline form. Both of these substances in measured quantity will bring the heart to a standstill after a definite period of time, but they vary very decidedly in their toxicity. By perfusing the heart with Ringer's solution following the one, the heart's action may be restored, but following the other the standstill is permanent. His next problem, he said, was to determine whether this action was chemical or physical.

Prof. H. Zannger of the Institute of Legal Medicine was in conference with the chief of police of the city when we called. All accidents, suicides, murders, and other such cases are investigated from a scientific medico-legal point of view. In one room they were examining the blood of canaries that had been exposed to carbon monoxide, in order to determine the reason for a recent tunnel accident. The circumstances of the accident were duplicated, and the canaries exposed to the carbon monoxide thought to have been present in the tunnel. In another room they were checking up on a new instrument, on the order of a polariscope, for determining the concentration of fluids, the nature of the fluid having first been determined chemically. Professor Zannger's fame has gone abroad, for he has received calls both from Berlin and the Rockefeller Institute in New York. He would be a great asset to this country should we succeed in securing him and his ideas.

Prof. Feer's Kinderspital was the first one of its kind that we went through. It was very complete with separate pavilions for diphtheria and other infectious diseases. The diphtheria pavilion, he said, had been closed for three years because they practically never saw a case of diphtheria. They had a room full of scarlet fever patients, but these, he said, were very light always, and without complications. In the main building he demonstrated patients with pyloric stenosis whom he claimed were "cured" by thick formulas. Very rarely do they find it necessary to operate. Intestinal infantilism patients he feeds on raw vegetables ground very fine. The care of the "eczema babies" I found every interesting. They are suspended in a rather taut hammock about 4 to 6 inches above the bed mattress and covered in the usual way. Between the hammock and mattress there is free circulation of air which is kept warm with several hot water bags. They claim that this free circulation of air beneath as well as over the baby there is less tendency to sweating and itching, and the babies certainly looked contented. But how our pediatricians would throw up their hands in horror at the number of "pacifiers" in babies' mouths. When we exclaimed, Professor Feer said laconically, "It is better than to let them cry."

Professor Nageli was every bit as strenuous as I was told he would be. When he says he will make rounds at nine, he begins at nine. The morning we were there he was making rounds in the pavilion for the tuberculous. We were interested to see that he was using anocrysin. He employs this only in the exudative cases and feels that it may hasten fibrosis, but was unwilling to make any positive statement as yet. He controls the progress of all cases with the use of frequent determinations of the globulin content of the blood serum. This was a point on which he laid great stress. Following the "visiten" he held a clinic for senior medical students. The conduct of this was practically the same as it is with us.

They have also in Zurich an out-patient department, complete in every detail. It is fully equipped as to chemical laboratory, clinical laboratory, x-ray, and fluoroscope, metabolism and electrocardiograph department. They have even six diagnostic beds for the more complicated cases where a patient makes a short stay for diagnosis only.

We missed much in Munich, owing to a series of saints' days, and nobody in Europe works on a saint's day. Professor Romberg's medical wards and clinics are most interesting. Everything is done with the utmost precision. His clinic to the students was a model of clarity and completeness. The equipment is perfect, and the entire house staff attends in the most spotless of white coats. No theatrical stage was ever more efficiently set. A "diener"

rolls in the bed with its occupant and stands ready to hand the professor his skin pencil, tape measure, percussion hammer, or what-not. He never even needs to express a wish. The house officer reads the salient points in the history, the professor demonstrates the patient, he presses a button, and down come the shades. The room is darkened before you know it and the patient's fever chart or intake and output chart or x-ray are thrown on the screen. Another house officer demonstrates the amount of albumin or other pathological finding in the urine. A miniature laboratory is set at the right hand of the stage. The patient is then dismissed, and prognosis and treatment discussed. The interesting thing is that this patient is returned to the clinic on subsequent days so that the students may follow the progress of the case. That morning he showed a syphilitic with complications and one of inflammatory rheumatism, a young woman. In the latter instance I was interested to note that he gave the sodium salicylate in two doses of 30 grains each, first thing in the morning and last thing at night. In this way the patient's appetite and meal hours were not interfered with. In postencephalitis Professor Romberg is giving atropine up to 25 mg. daily.

In Vienna we confined ourselves to the clinics and wards of Professor Wenckebach and Professor Pirquet. All titles have been dropped in Austria. The Kinderspital of Professor Pirquet is a model establishment in every way. There is a main central building, an infectious disease pavilion, a building for diabetic children, and a building for the study of epileptics and forms of mental deficiency, combined with a school where the tuberculous children attend classes. On the top floor of the main building, which is mostly open, are the tuberculous children. Boys and girls are dressed alike in a kind of cover-all (not any more beautiful than the variety we use here), and on staff round days are lined up in double rows to sing out "Gruss Gott" as Professor Pirquet and his train enter the room. They sleep and play out of doors and attend the special school. There are also bed patients who stay out day and night. The floors below show every kind of case imaginable. There is no dearth of material nor lack of opportunity for the graduate student to work out any problem that he or she may care to undertake. And I am sure that any such would receive the greatest encouragement from Professor Pirquet and his assistants. Of course it is absolutely essential to know German well (and this holds true of most of the other clinics visited), for although Professor Pirquet speaks English fluently, no one else does, and I feel that one would make slow progress without a knowledge of the language.

In this same building are the x-ray and fluoroscopic rooms, out-patient department, and formula laboratory. The beauty of the latter would be the envy of any dietitian. The infectious disease pavilion gives off as a wing from the main building. The construction is that of glass cubicles in a double row with a wide aisle down the center and narrower aisles on the outer walls. Each cubicle is equipped with bathtub, toilet, and basin. The lighting is excellent, and in this way it is practically unnecessary for the physician to enter the cubicles for the observation of patients. There are always from thirty to forty diabetic children, and they are housed in a separate building under the care of Doctor Wagner. Many of these presented endocrine problems also. They were investigating all forms of insulin, especially with a view of finding a product which could be taken by mouth. In still another building are the schools and play rooms for the mentally deficient. Here various methods of educating these children are being investigated. Professor Pirquet seems to be especially interested in education, and after the completion of rounds took us to a public school to see a "Riformschule." "Riform" there has not the connotation that we give it here, but refers rather to an experiment in education. Here we visited a class of boys of about 12 to 13 years of age in the process of giving each other a French lesson. These boys govern themselves and are sometimes without a teacher for hours. They elect leaders who call on the other members of the class for recitations and also grade each other on those recitations. After one little boy had recited a particularly long poem with few mistakes, a discussion ensued (always in French during French class) as to whether he should

receive a "one." They finally agreed that, inasmuch as there were ladies in the room, he really should be excused for making the mistakes and given a "one." The excellence of their French made us blush with shame.

Professor Wenckebach is most gracious. I attended his demonstration in physical diagnosis to second-year students. There is no bedside instruction, but a complete demonstration of each type of case with three to four students called onto the platform each time to examine the patient. Doctor Wenckebach has very decided views on medical education, and after the lecture we had a long conversation on full time as versus part-time instruction. He is very much opposed to the former. His cardiac clinic is most interesting and he cordially welcomes research workers, but will not take them unless they are willing to spend six or more months with him and take up some definite problem. He has four small wards with from four to five beds each and two two-bed wards for cardiac cases which are studied completely. The ambulatory cardiac clinic has from forty to fifty patients a day. In addition to physical examination, all receive electrocardiograms, pulse tracings, and x-ray films. A bus is sent for those unable to walk to the clinic. Another feature of the clinic is the consideration of the condition of the heart in those patients suffering primarily from some other ailment, but with symptoms suggesting cardiac involvement. These are sent from other clinics and from private physicians and returned with diagnosis to their source.

I had the pleasure of seeing Dr. Florence Sabin at the Rockefeller Institute and Dr. William Park of New York. Doctor Sabin is doing some truly thrilling work in connection with vitally stained blood cells, and a method of early diagnosis of pulmonary tuberculosis. Dr. William Park told me of a wonderful surgeon who had perfected an operation whereby those children who had for years worn a tracheotomy tube were, by a plastic operation, given a new larynx. They had been restored to their parents and school as useful citizens, and were being taught to speak again. We also had a discussion as to the proper technique for the administration of toxin-antitoxin. He said it was a timely question, as they were even then under discussion as to the relative advantages of the subcutaneous and intramuscular injections. Some claimed that there was injury to the muscle fiber in the intramuscular injection, though he himself did not feel so, and they were about to section the muscles of animals to establish the facts. He said that the technique that he liked was to give the first injection subcutaneously, and to regard it in the light of a Schick test, seeing the arm at the end of the sixth or seventh day. If it were positive he advocated proceeding with the second and third injections, giving them intramuscularly. If it were negative he felt that further injections might be dispensed with.

One comes home from a visit of this sort with the feeling that one must hurry and earn the wherewithal to do it all over again.

The New York State Department of Health has lined up solidly against an attempt to secure the enactment of a special chiropractic bill in the New York State Legislature.

Commenting upon this opposition by public health authorities the *New York State Journal of Medicine* said:

"The second witness was Dr. Matthias Nicoll, Jr., commissioner of health of New York State. Doctor Nicoll said that chiropractors acknowledge that they practice medicine and treat contagious diseases, although they know little about them, and say they have no need to study them; yet failure to recognize them and treat them properly is not only harmful to the patient, but is also a public menace. Doctor Nicoll also said that the State Department of Health is supervising 2000 children crippled from poliomyelitis, many of whom were still helpless because they were improperly treated by chiropractors during the early stages when improvement might be effected."—*Ohio M. J.*

In cases of peritonitis use Fowler's position at once. Do not wait until after the operation.

Merely raising the head of the bed (Fowler's position) will not as surely encourage gravitation of fluid to the pelvis as will siting the patient up in bed.—*Am. J. Surg.*

CALIFORNIA STATE BOARD OF MEDICAL EXAMINERS*

By C. B. PINKHAM, M. D., *Secretary*

According to the report of our special agent, J. Lafayette Berry, whose license was revoked October 21, 1919, was on April 1, 1927, found guilty of practicing medicine without a license by Superior Judge Edwin Hahn of Los Angeles, who thereafter imposed a sentence of ninety days in the county jail, suspended for two years on the condition that Doctor Berry does not violate the Medical Practice Act during the period of his probation.

On March 16, 1927, the appointment of Samuel J. Howell as a member of the State Board of Chiropractic Examiners to succeed J. K. Gilkerson, resigned, was announced through the press.

The San Francisco *Chronicle* of March 27, 1927, related the arrest of Julius Wolf, William Hopkins and Frank Mandanba, San Francisco, alleged to have been former students in the dental department of the College of Physicians and Surgeons, San Francisco, it being further related that said individuals had employed a Howard Street engraving firm to make dental diplomas in connection with a "diploma mill" plot, both in the United States and the Philippine Islands, whereby it is presumed dentists were to be made in wholesale quantities without the necessity of institutional training.

Governor Young today signed the diploma mill measure, by Senator J. J. Crowley of San Francisco, who introduced the bill at the request of the State Board of Medical Examiners. The bill makes sweeping provisions against people who fraudulently procure or counterfeit any medical degree or certificate and provides that such action be a felony, inflicting a stringent fine against violators (San Francisco *Examiner*, April 8, 1927). Governor Young in signing this measure makes California an outstanding state in providing either prison sentence or heavy fine on those who attempt to operate diploma mills, etc.

According to the Police Department of Sawtelle, California, Margaret E. Dunlap, mentioned in the February, 1927, "News Items" as a physician arrested on a fictitious check charge is not a physician, but uses the prefix "Dr." as an aid in passing fictitious checks.

According to a press dispatch dated Paso Robles, April 7, published in the San Luis *Telegram* of the same date, it appears that the "eyesight specialist" swindlers are still operating in this state, it being related that Constable Peterson had arrested a man posing as an expert eye doctor, who was alleged to have attempted the same old swindle on J. S. Matthews as perpetrated by Messrs. Faircloth and Gebhardt, mentioned in "News Items" of February and March, 1926. This individual apparently removed a small growth from the patient's eye, for which he demanded the sum of \$367.50. An article relating the method of operation of these eyesight swindlers was published in the bulletin of the Federation of Medical Examining Boards, March 27, there seeming to be an "epidemic" of such swindlers which has spread across the United States.

Dr. J. A. Hadley, Arcata physician accused in connection with the death of Louise Baxendale, 19-year-old Oakland girl, who died following an illegal operation April 6 last, was today held for trial in the Superior Court. Doctor Hadley is charged with second degree murder. Walter Thayer, 20, of Oakland, who confessed to the District Attorney that he brought the girl to Doctor Hadley for an operation, is being held in jail as a material witness. Doctor Hadley denies the charge against him.—*San Francisco Examiner*, April 14, 1927.

In the face of a possible Grand Jury investigation into the shooting of Dr. George Ham, Moneta physician and surgeon, by Motorcycle Officer C. J. Andrews on March 14, while the doctor was answering an emergency call, the Compton Board of Trustees voted to reinstate the officer and exonerated him. . . .—*Los Angeles Record*, March 23, 1927.

Dr. Ralph W. Harris, 2145 Marne Avenue, fell victim to a lone footpad early today when he answered a call for aid. The doctor told police detectives he received a

* This column is compiled and edited by the secretary of the California Board of Medical Examiners.

call to go to 1524 Georgia Street, and, on reaching the spot, was stopped by the bandit, who held him up and took his watch and \$5 cash (Los Angeles *Herald*, March 29, 1927). Mention of similar procedure has appeared in previous issues of "News Items."

According to the Los Angeles *Examiner* of March 21, 1927, Dr. Frederick Kane pleaded guilty to a charge of possession of intoxicating liquors and paid a fine of \$150, the article relating "When the policemen attempted to arrest the physician, he ran, after trying to break two pint bottles of liquor. . . . Doctor Kane explained he was going to take the liquor to a sick patient when he was accosted. . . ." According to a report from our special agent, Fred Kane is not a physician, but was formerly employed in a laboratory of a Los Angeles dentist, who stated that he "had to let him go."

Governor Young on April 5, 1927, signed Senate Bill 73 (Senator Young), sponsored by the Board of Medical Examiners and the Board of Osteopathic Examiners, which amends the Medical Practice Act, making it a cause for the issuance of a citation to give ambulatory treatment to narcotic addicts. Section 14 is further amended by prohibiting the use of the suffix "M. D." or "D. O." by those who have not fully completed a course of instruction in an approved medical or osteopathic school.

Dr. Frederick K. Lord, Ceres, California, who continued to practice during the term of the suspension of his certificate, imposed by the board March 9, 1926, has been cited to appear before the board at its next regular meeting to show cause why his license should not be revoked for failing to comply with the judgment of the board. (Previous entries, March, May, June, July, 1926; January, February, March, 1927.)

The San Francisco *Bulletin* of April 13, 1927, printed a news item headed "Los Angeles Surgeon Arrested for Murdering Wife," relating to a press dispatch dated Detroit, April 13, noting the arrest of Dr. Frank R. Loomis, a physician and surgeon, on a charge of first degree murder in connection with "the mysterious clubbing to death in the family home the night of February 22 of Mrs. Grace Loomis." The records of the Board of Medical Examiners do not show anyone by the name of Frank R. Loomis licensed to practice in this state.

A citation has been issued calling Dr. G. Carl H. McPheeters, Fresno, California, before the board at the next regular meeting to show cause why his license should not be revoked. (Previous entries, September, October, December, 1926; January, 1927.)

A citation has been issued calling Eldridge R. Morlan of Fellows before the board at the next regular meeting to show cause why his license should not be revoked based on alleged illegal operations. (Previous entry, March, 1927.)

Reports continue to be filed relating the theft from automobiles, etc., of physicians' instrument bags, some of which are later recovered intact, with the exception of the loss of the narcotics contained therein. Evidently strict enforcement is resulting in the narcotic addict finding it more difficult to obtain a supply. According to the Los Angeles *Herald* of March 29, Dr. B. W. Heath, a veterinarian, was held up, bound to a chair, and his assailant then stole a quantity of narcotics, etc.

Inquiries are coming to us regarding the "Natural Eyesight Institute," 1300 Pershing Square Building, Los Angeles, reported as extensively advertising in eastern magazines, our investigator reporting that so far as he can ascertain there are no licensed physicians, opticians, or other licensed individuals connected with this Institute, alleged to be operated by Urban L. Barrett, formerly connected with his three brothers in operating "The Barrett Institute, an unincorporated institution at 1932 West Sixth Street, Los Angeles."

According to reports, A. Silva, Hanford, California, on March 8, 1927, pleaded guilty to a charge of violating of the Medical Practice Act and was placed on probation for two years.

The predictions made by a drug addict months ago that he would rock Ventura by his revelations are coming true. Dr. G. N. Stockwell, prominent local physician, who has practiced here for years, was arrested by a squad of county, state and federal officers last night. Doctor Stockwell was

cornered in his office and a search of his quarters revealed the stock of opiates, valued at \$2000 by the federal operatives. The arresting officers feel sure that the dope is smuggled narcotics. . . .—*Ventura Free Press*, March 15, 1927.

Unless the District Attorney appeals Superior Judge Charles S. Burnell's ruling granting a new trial to Dr. W. E. Williams, convicted of manslaughter by a jury last week, the physician will be tried a second time within the next thirty days, if an open day can be found. In the meantime Dr. Williams, who has been in the county jail since his conviction, is released on his own recognizance. He is accused of causing the death of Evelyn Taylor by an illegal operation—(Los Angeles *Express*, April 1, 1927). A citation has been issued calling Willie Eason Williams before the board at the next regular meeting to show cause why his license should not be revoked. (Previous entries, "News Items," April, 1927.)

The heretofore lax corporation laws of California have been immeasurably strengthened by Governor Young's approval of Senate Bill 633 (Senator Slater), which places strict supervision over the incorporation of colleges or seminaries given power to confer degrees. This essential legislation "dovetails" with the recently signed diploma mill bill, making it a felony to use fraudulent degrees, etc.

Governor Young recently signed Senate Bill 308 (Senator Crowley), amending Section 11 of the Medical Practice Act, modernizing the subjects of examination in accordance with the wishes of the medical schools of the state.

Assembly Bill 178 (Mr. Woolwine) was signed by Governor Young April 13, 1927. This bill amends Section 13 of the Medical Act by requiring oral examination of all those who base their reciprocity applications on a certificate issued by a sister state, dated ten years prior to their filing their applications in California, and further amends the section by allowing the Osteopathic Board to give an oral examination for a physician and surgeon's certificate to those who have been granted reciprocity certificates to practice osteopathy and who satisfy the board that their credentials entitle them to such examination.

The application of psychology demands a close study of the mental attitude of the patient, not only toward his disease, but toward his physician. The wise doctor makes a minute study of the mental reactions of his patient and he treats him in such a way that his mental equilibrium is disturbed to the least possible degree. He exercises the greatest caution as to what he tells the patient, both as to diagnosis and prognosis. Let it be remembered always that accurate prognosis is the most difficult of the medical sciences. In my short years of practice I have seen a number of persons live out their allotted time, upon whom some physician of repute had pronounced a death sentence twenty years previously. A careless and unguarded prognosis savors of quackery. It is the chief stock-in-trade of the alarmist, frequently driving patients through fear into unnecessary operations or developing in them lifelong neuroses.—George C. Davis, *Lycoming Co. (Pa.) Bull.*

The general practitioner, is, and must remain, the backbone of the medical profession. His place in the great army of physicians, waging warfare against disease, has been aptly likened to that of the infantryman in the military establishment. He is, in fact, the dough-boy of the profession, and on his efficiency and well-being, depends the morale of that profession. He must therefore realize the responsibilities which rest upon him. He must use the five senses in his possession and such special instruments as he can command, he must reason logically to a conclusion and apply appropriate remedies. To do this is as truly scientific in method as the work of the laboratory research man.—George C. Davis, *Lycoming Co. (Pa.) Bull.*

I urge the younger members of the profession to study earnestly and practice faithfully the code of medical ethics; the older members to review it frequently, to obey the dictates of a quickened conscience. May we all study the moral philosophy of medicine.—George C. Davis, *Lycoming Co. (Pa.) Bull.*

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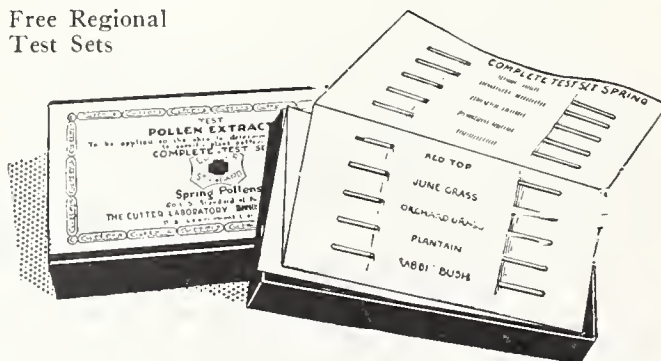
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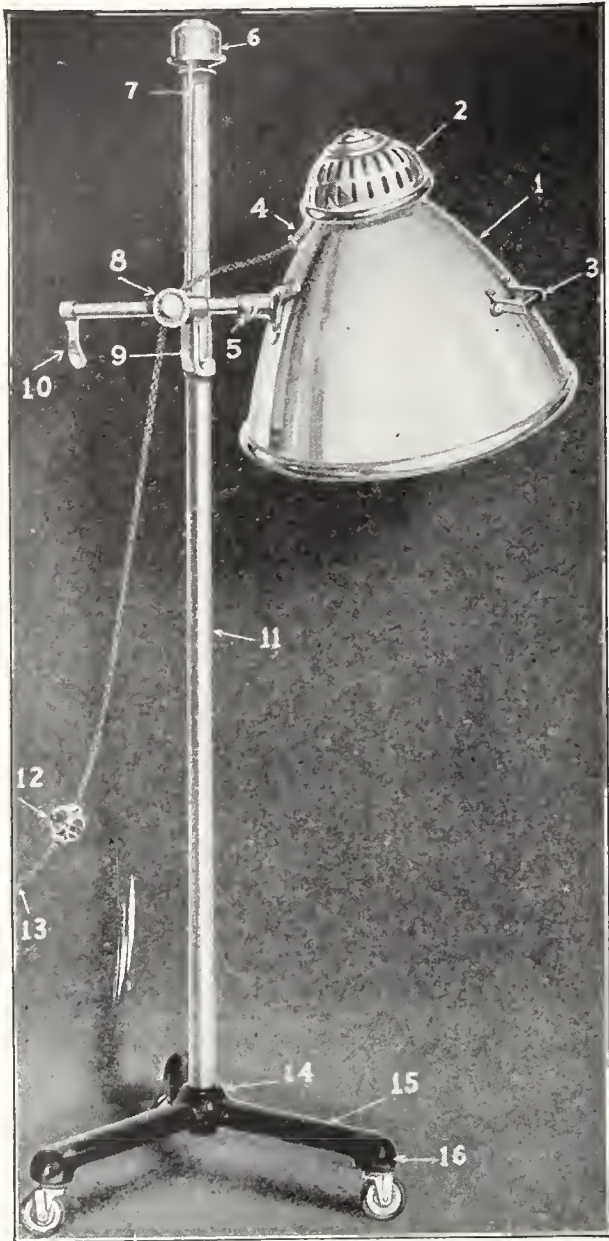
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BOOK REVIEWS

This column is conducted solely in the interests of California and Western Medicine readers. Critical comment, favorable and unfavorable, purely from the standpoint of the interests of the medical reader, will be made about books selected from the larger number acknowledged in the Books Received column. The advertising columns are open to book publishers who wish to make additional statements about their publications.

Visual Field Studies. By Ralph I. Floyd, M.D. Pp. 216. 124 illustrations. New York: The Technical Press, 1926. Price, \$6.

This small book contains more than its name implies. Beginning with an interesting historical review of the subject, the author goes on to a detailed discussion of the physiology of the retina, including vision rating, visual acuity, variations in color perception, and the interesting physiology of reading. He then takes up the normal fields, their variations, and the technique to be used for obtaining consistent results. In this he gives some very valuable suggestions. The remaining two-thirds of the book is given over to consideration of the field changes in the various eye diseases which affect the fields. The author does not limit himself to a discussion of these changes, but gives a resumé of the most important signs and symptoms characteristic of each disease. In some instances, he includes a brief discussion of the etiology and prognosis which, on the whole, are well worked out. In addition to the eye diseases, the author takes up retrobulbar affections, the accessory sinuses, hypophyseal conditions, trauma, etc., in short, every condition which can cause a change in the visual field. Of especial interest is Lloyd's theory of the etiology of strabismus. He feels that there is always present a lesion of the ocular perceptive apparatus, due to various causes as, for example, traumatic hemorrhages in the retina at birth. While enticing, this theory cannot be considered as accepted at present. The type and printing are exceptionally sharp and black, and the diagrams well printed. The work is recommended to all ophthalmologists, as well as other physicians interested in this subject.

The Diseases of Infancy and Childhood. For the Use of Students and Practitioners of Medicine. By L. Emmett Holt and John Howland. Ninth Edition. Pp. 1018. Illustrated. New York and London: D. Appleton and Company, 1926.

Since the first edition appeared in 1897, Holt's Pediatrics has beyond question continued pre-eminent in its field. The ninth edition, revised by Howland just before his greatly regretted death, maintains the high standard of its predecessors. While the book has in fact been largely rewritten and brought satisfactorily up to date, it still bears the strong impress of its original author. The most impressive characteristics are clarity and conciseness of style, meticulous separation of the wheat of fact from the chaff of theory, accuracy of statement, and completeness of presentation.

Pathology is adequately described, symptoms thoroughly covered, diagnosis clearly defined, and treatment conservatively but adequately discussed; yet the whole is so compact that the now enormous subject of pediatrics is covered with reasonable completeness in about one thousand pages.

The sections on infant feeding, diseases of the intestines, lungs, heart, kidneys, nervous system, blood, ductless glands, scarlet fever, and diabetes mellitus have been largely rewritten. Much more space than previously has been given to the various forms of congenital malformations of the heart. There are new sections on exanthem subitum, glandular fever, and erythredema (acrodynia). The index, always good, has been improved by bold-facing the main subjects.

The reviewer advises the practitioner who plans to have but one work of pediatric reference on his shelves to get Holt and Howland.

H. K. F.

One of the recent interesting acts of Spain's new dictator, General Primo de Rivera, was the dissolution of the Beggars' Union in Madrid. This organization was established in Madrid about ten years ago, and since that time has worked its way into all the cities of the country, exercising so much power that it was able to establish a reign of terror before which local authorities were helpless. It numbered about 120,000 members and had a staff of nine officers, including two secretaries on salary. To become a member, one had to be a Spanish subject or citizen making a living exclusively by begging.—*M. J. and Record.*

A Scotsman was leaving on a business trip, and he called back as he was leaving: "Good-by all; and dinna forget to tak' little Donal's glasses off when he isn't lookin' at anything."—*Colorado Med.*

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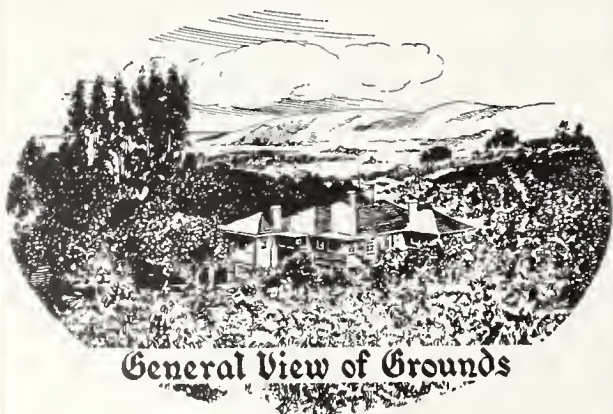
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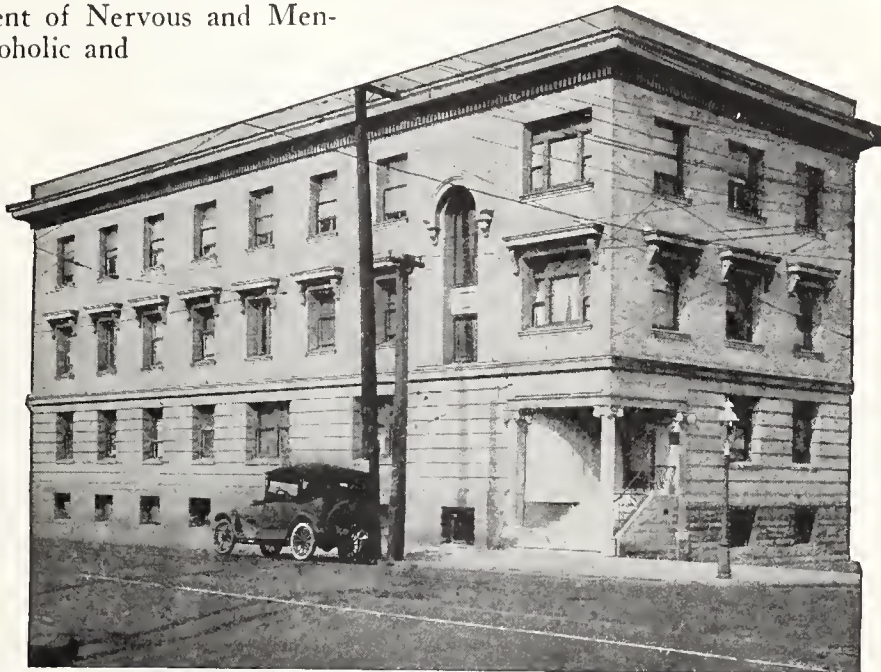
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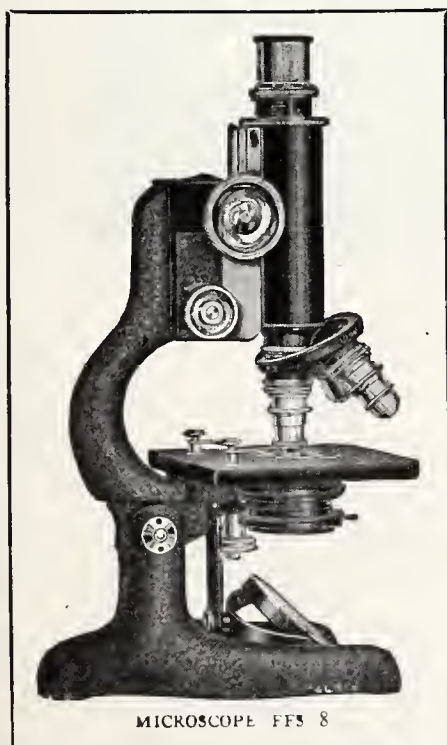
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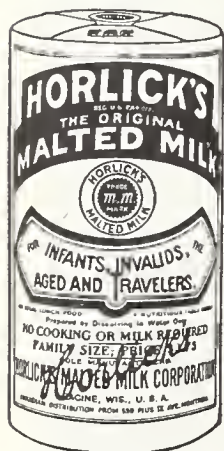
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Influenza Deaths Pass Peak, Says League of Nations' Report—Deaths from influenza in Europe, where in recent months there has been an epidemic of that disease, have evidently passed the season's peak, according to statistics given in the monthly epidemiological report of the League of Nations' health section. This report has just been received here by the League of Nations' Non-Partisan Association.

The high point of the outbreak was reached in January in the countries most severely affected, the highest death rate being at Geneva, in Switzerland, where there were 129 influenza fatalities per 100,000 inhabitants between December 5 and February 12. This figure is almost equal to Geneva's annual tuberculosis mortality.

In 1924 there was a widespread prevalence of influenza both in Great Britain and on the continent, but in the last two years there has been little of this malady in those parts of the world. The present epidemic has followed pretty closely the rise-and-fall curve of the more serious outbreak of 1922.

Last autumn considerable apprehension was caused in Europe when influenza, though of mild form, was reported in evidence earlier than usual in the season in several countries. . . .

In the United States there was no unusual prevalence of influenza during the past winter. For the whole country 1942 cases of the disease were reported in the week ending January 8, against 1718 in the same week of 1926. But in subsequent weeks the existing cases in this country have been fewer than in corresponding weeks last year.

Without suggesting any relationship between the earlier epidemics of the Far East and the European outbreak, the League of Nations' report recalls that influenza spread itself during last June, July, and August through the interior of China from Mongolia in the north to Yunnan in the south, and that an epidemic occurred in New Zealand, reaching its maximum late in July.



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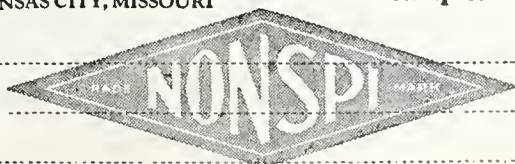
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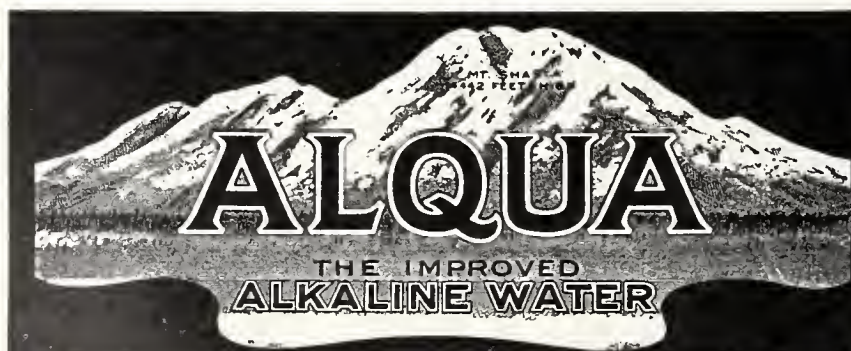
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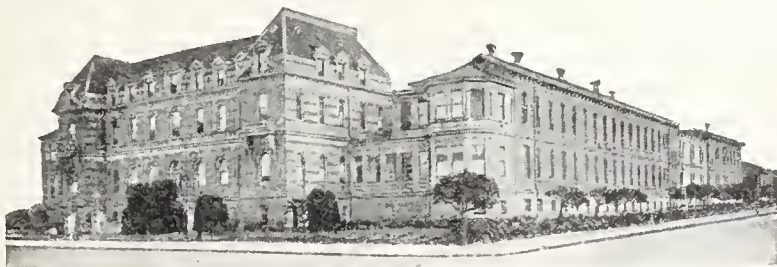
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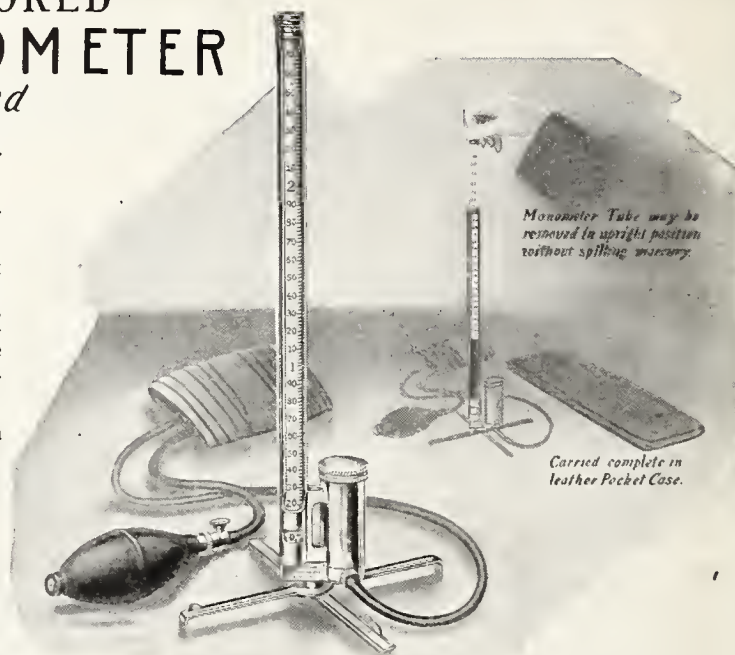
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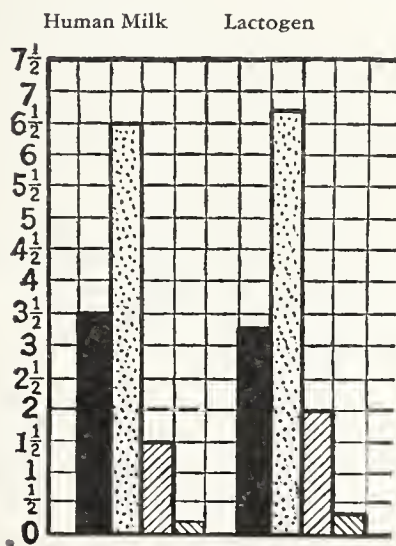
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Abbott Laboratories—Abbott's Mineral Oil Emulsion; Ephedrine Hydrochloride (Abbott).

Eli Lilly & Co.—Ephedrine Sulphate (Lilly). Pulvules Ephedrine Sulphate (Lilly), 0.025 Gm.; Pulvules Ephedrine Sulphate (Lilly), 0.05 Gm.; Ampoules Ephedrine

Sulphate (Lilly), 1 cc., 0.05 Gm.; Solution Ephedrine Sulphate (Lilly), 3 per cent.

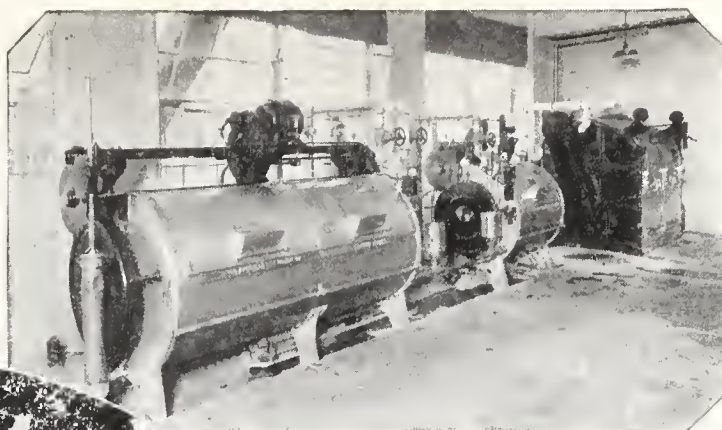
E. R. Squibb & Sons—Scarlet Fever Streptococcus Toxin (Squibb), 1 cc.

Towt-Nolan Laboratory—Lactobacillus Acidophilus Milk (Towt).

Dr. George A. Munch, convicted head of a "diploma mill," said to have been operated here since 1921, was sentenced to five years' imprisonment in the federal penitentiary at Atlanta and a fine of \$1000 in federal court today. Notice of an appeal was filed by defense attorneys. —*Bull. Wayne County Med. Soc.*

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—*Louisville Courier Journal.*

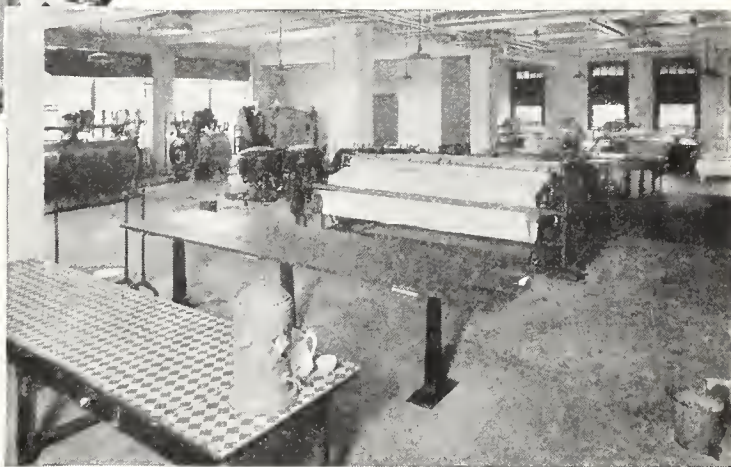


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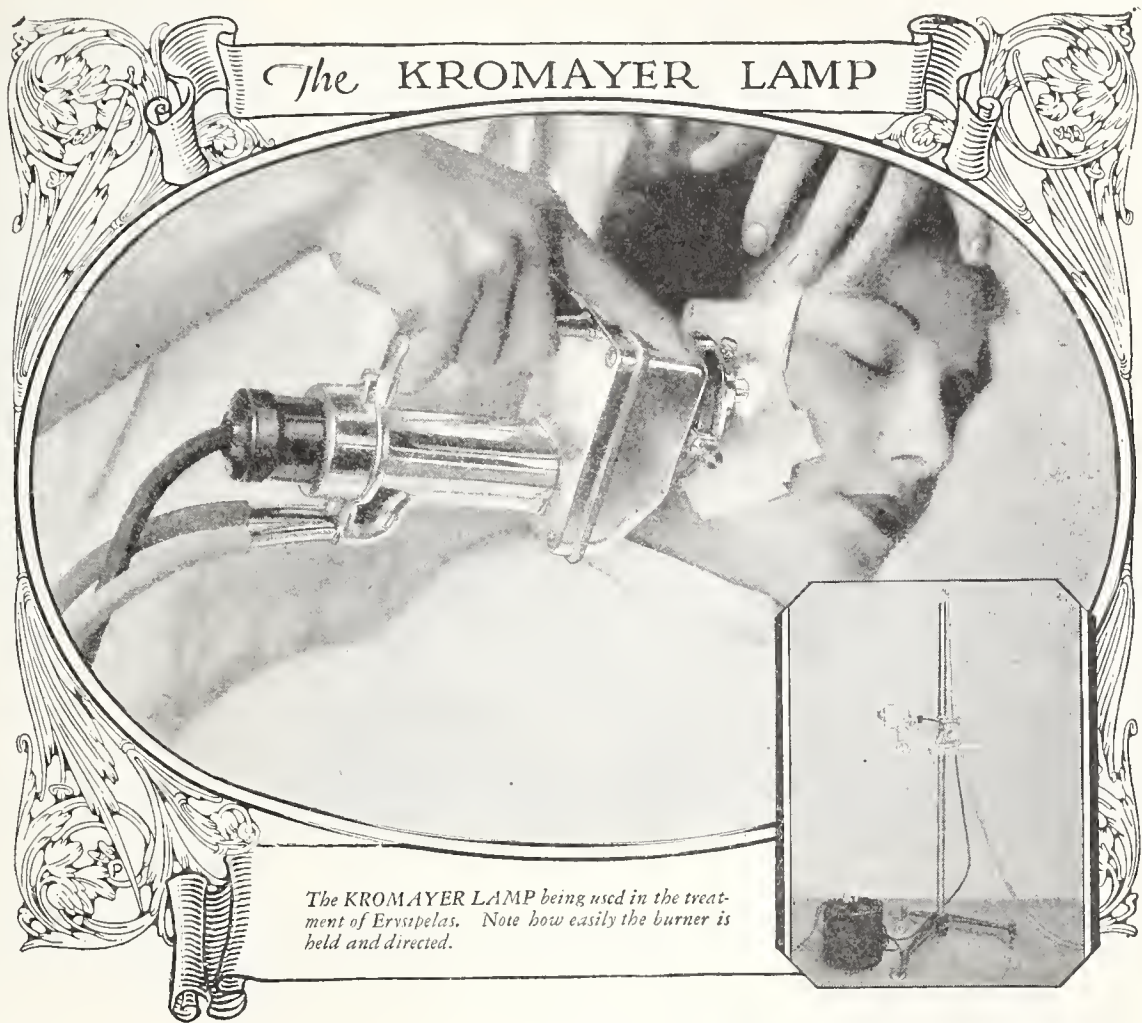
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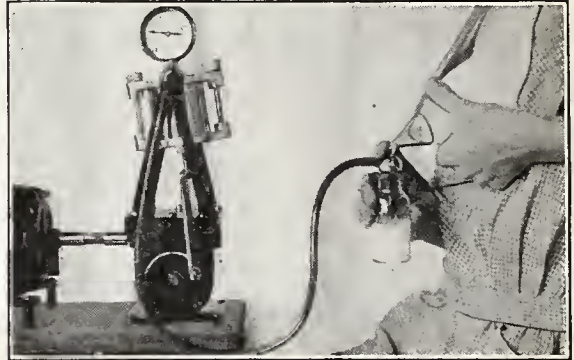
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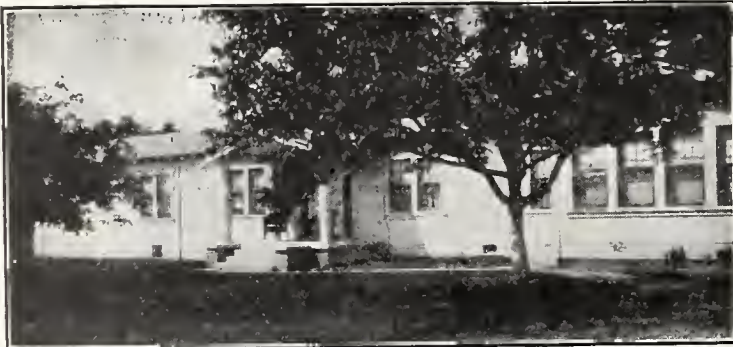
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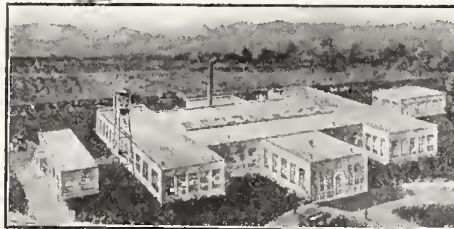
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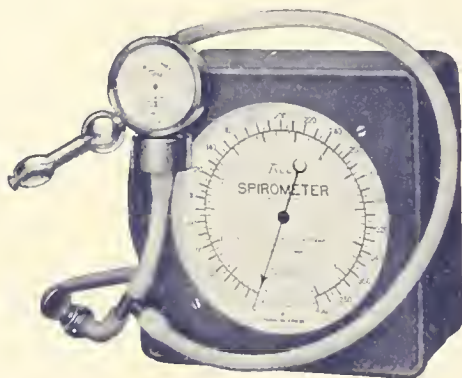
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✓ Index p 832-837
1928 Session California Medical Association will be held at Sacramento

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Contributors to This Issue

HUBERT WORK

Medicine in the Department of the Interior

STUART MCGUIRE

The Profit and Loss Account of Modern Medicine

EMIL BOGEN

The Diagnosis of Drunkenness—A Quantitative Study of Acute Alcoholic Intoxication

FRED R. FAIRCHILD

Associated Fees—Medical and Surgical

ANDREW J. THORNTON

Progress in Pediatrics

H. A. ROSENKRANZ

Some remarks on the Art and Science of Urology

CHARLES PIERRE MATHÉ AND GEORGE F. OVIEDO

Spontaneous Rupture of a Hydronephrotic Sac Secondary to Ureteral Stone

CHARLES CALVIN TIFFIN

Cretinism and Its Relation to Thyroid Disease

NORMAN CARR PAINE

Review of Necropsies, Medical Service, Los Angeles General Hospital

R. KNIGHT SMITH AND T. HENSHAW KELLY

Caesarean Section in Obstructed Pelvis

C. RAY LOUNSBERRY

Skin Cancer of the Face and Neck

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Volume XXVI

JUNE • 1927

Number 6

How high protein feedings with carbohydrate additions can be used to correct fermentative (summer) diarrhoea —

FERMENTATIVE (summer) diarrhoea in infants is now recognized in the majority of cases as being due to excessive fermentation of carbohydrates. The stools are usually distinguished as being greenish in color, acid in odor, irritating to the skin, and with or without mucous.

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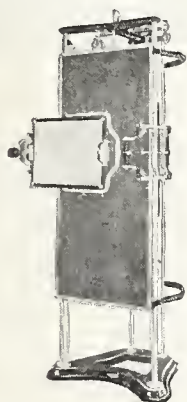
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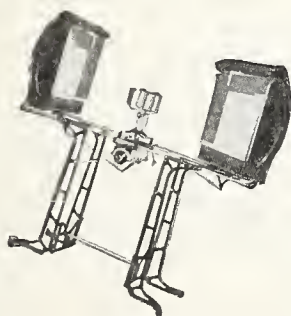
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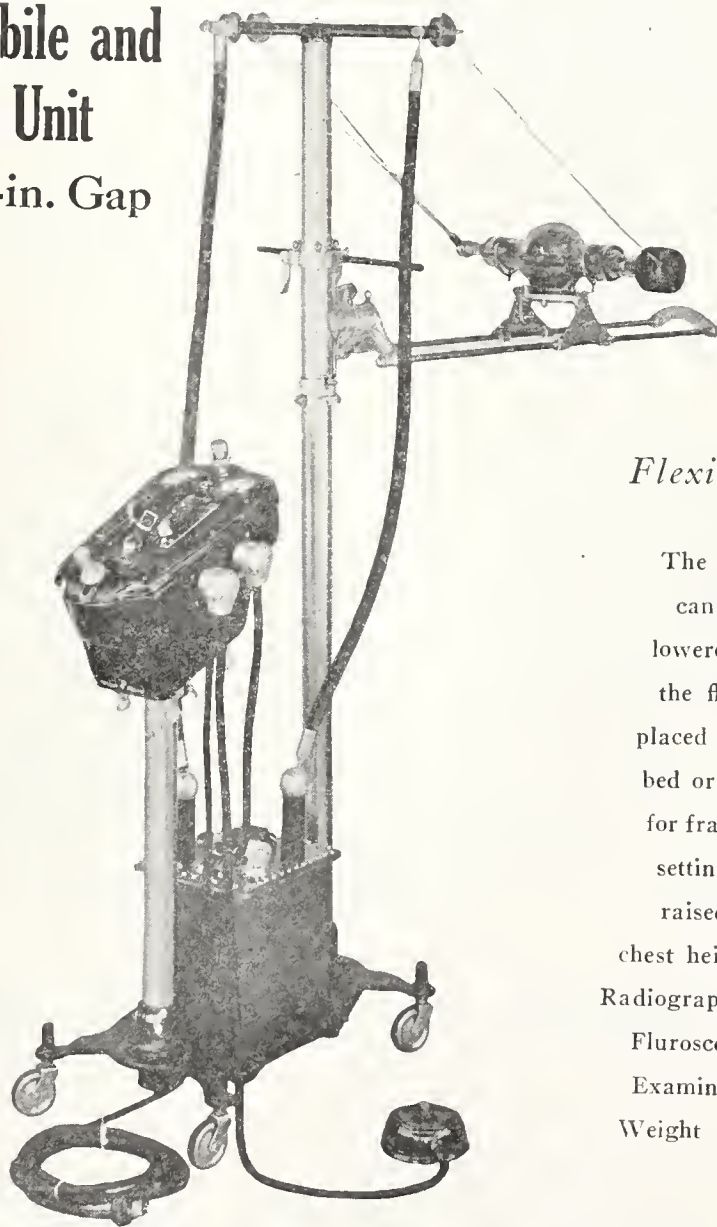
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VOLUME XXVI

JUNE, 1927

No. 6

Subscription prices, \$5.00 (\$6.00 for foreign countries); single copies, 50 cents.

Acceptance for mailing at special rate of postage provided for in Section 1103, Act of October 3, 1917, authorized August 10, 1918.

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BOOKS RECEIVED

Management of the Sick Infant. By Langley Porter, B. S., M. D., and William E. Carter, M. D. Third Revised Edition. St. Louis: The C. V. Mosby Company, 1927.

Tiger Trails in Southern Asia. By Richard L. Sutton, M. D. Review copy by courtesy of the publishers, The C. V. Mosby Company, St. Louis, 1926.

Principles of Chemistry. An Introductory Textbook. By Joseph H. Roe, Ph.D. Review copy by courtesy of the publishers, The C. V. Mosby Company, St. Louis, 1927.

Examination of Children by Clinical and Laboratory Methods. By Abraham Levinson, M. D. Second Edition. Review copy by courtesy of the publishers, The C. V. Mosby Company, St. Louis, 1927.

Proceedings of the Nineteenth and Twentieth Conferences of the American Association of Medical Milk Commissions, in conjunction with the Certified Milk Producers' Association of America, 1925 and 1926. Brooklyn, N. Y., 1926.

Should We Be Vaccinated? A Survey of the Controversy in Its Historical and Scientific Aspects. By Bernard J. Stern. Review copy by courtesy of the publishers, Harper & Brothers, New York, 1927.

A Manual of Gynecology. By John Osborn Polak, M. D. Third Edition Revised. Review copy by courtesy of the publishers, Lea & Febiger, Philadelphia, 1927.

A Practical Treatise on Diseases of the Skin for the Use of Students and Practitioners. By Oliver S. Ormsby, M. D. Third Edition Revised. Review copy by courtesy of the publishers, Lea & Febiger, Philadelphia, 1927.

Diseases of the Digestive Organs, with Special Reference to Their Diagnosis and Treatment. By Charles D. Aaron, M. D. Fourth Edition, Revised. Review copy by courtesy of the publishers, Lea & Febiger, Philadelphia, 1927.

(Continued on page 747)

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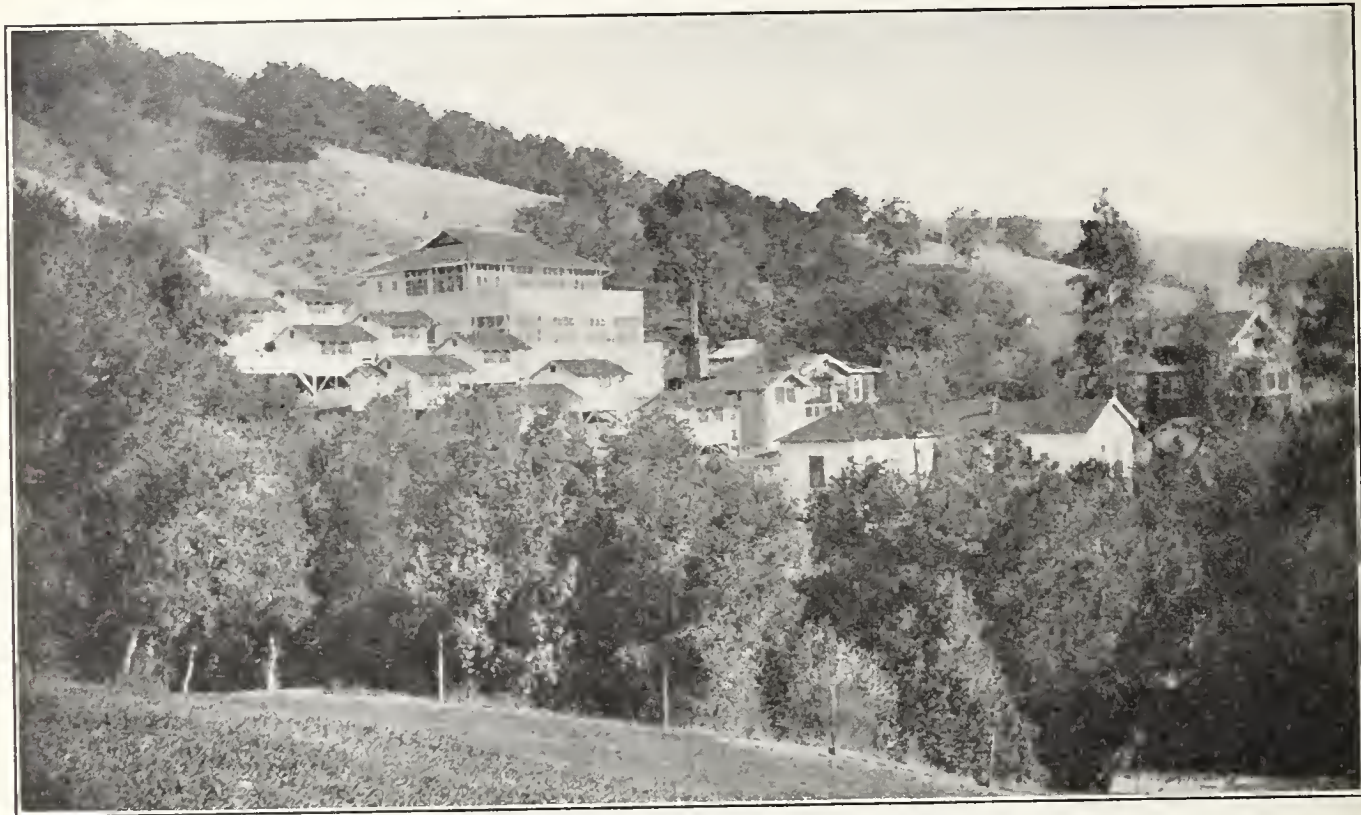
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BOOKS RECEIVED

(Continued from page 745)

Four Thousand Years of Pharmacy. By Charles H. LaWall. Review copy by courtesy of the publishers, J. B. Lippincott Company, Philadelphia, 1927.

The International Medical Annual. A Year Book of Treatment and Practitioner's Index. Review copy by courtesy of the publishers, Messrs. William Wood & Company, New York, 1927.

Social Factors in Medical Progress. By Bernard J. Stern. Review copy by courtesy of the publishers, The Columbia Press, New York City.

Method for Cure of Urinary Incontinence in Male—
The gracilis transplant is employed by Lionel P. Player and C. Latimer Callander, San Francisco (*Journal A. M. A.*), in an endeavor to effect a cure in urinary incontinence in the male. The method in general consists in encircling the corpus cavernosum urethrae with the terminal portion of a transplanted gracilis muscle, the encircling to be done as close to the membranous urethra as possible. The operation consists of three stages: (a) a perineal exposure, through the midline, of the corpus cavernosum urethrae with a blunt-dissection isolation of that structure (b) a thigh incision to isolate the gracilis muscle with the conservation of the main proximal blood and nerve supply; (c) a combined thigh and perineal maneuver, which consists in encircling the corpus cavernosum urethrae with its contained cavernous urethra as near the urogenital diaphragm as possible with the terminal or distal portion of the transplanted gracilis muscle.

Increase in Stature of American Boys in Last Fifty Years—Horace Gray, Chicago (*Journal A. M. A.*), asserts that American-born boys of American-born parents are today taller than boys fifty years ago by more than 2 inches.

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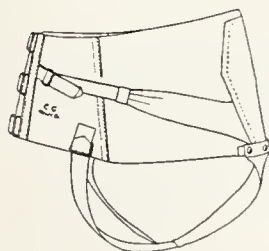
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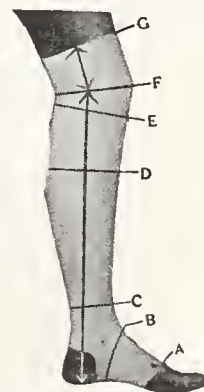


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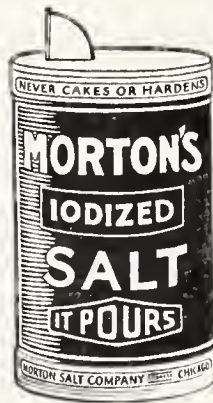
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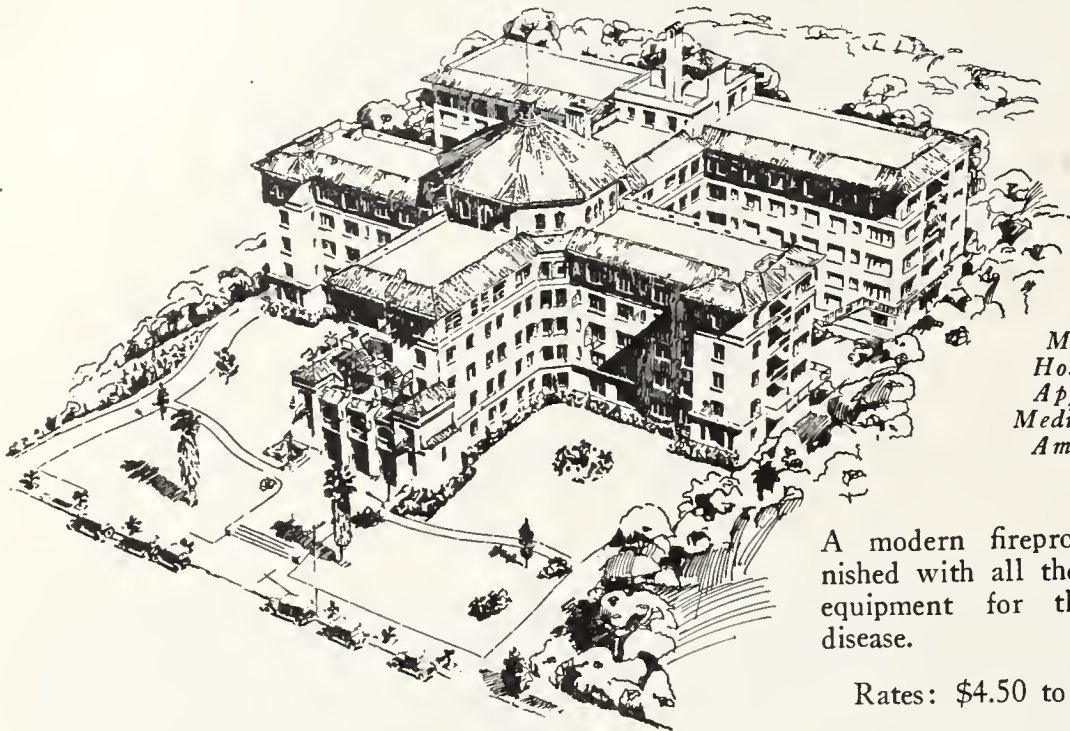
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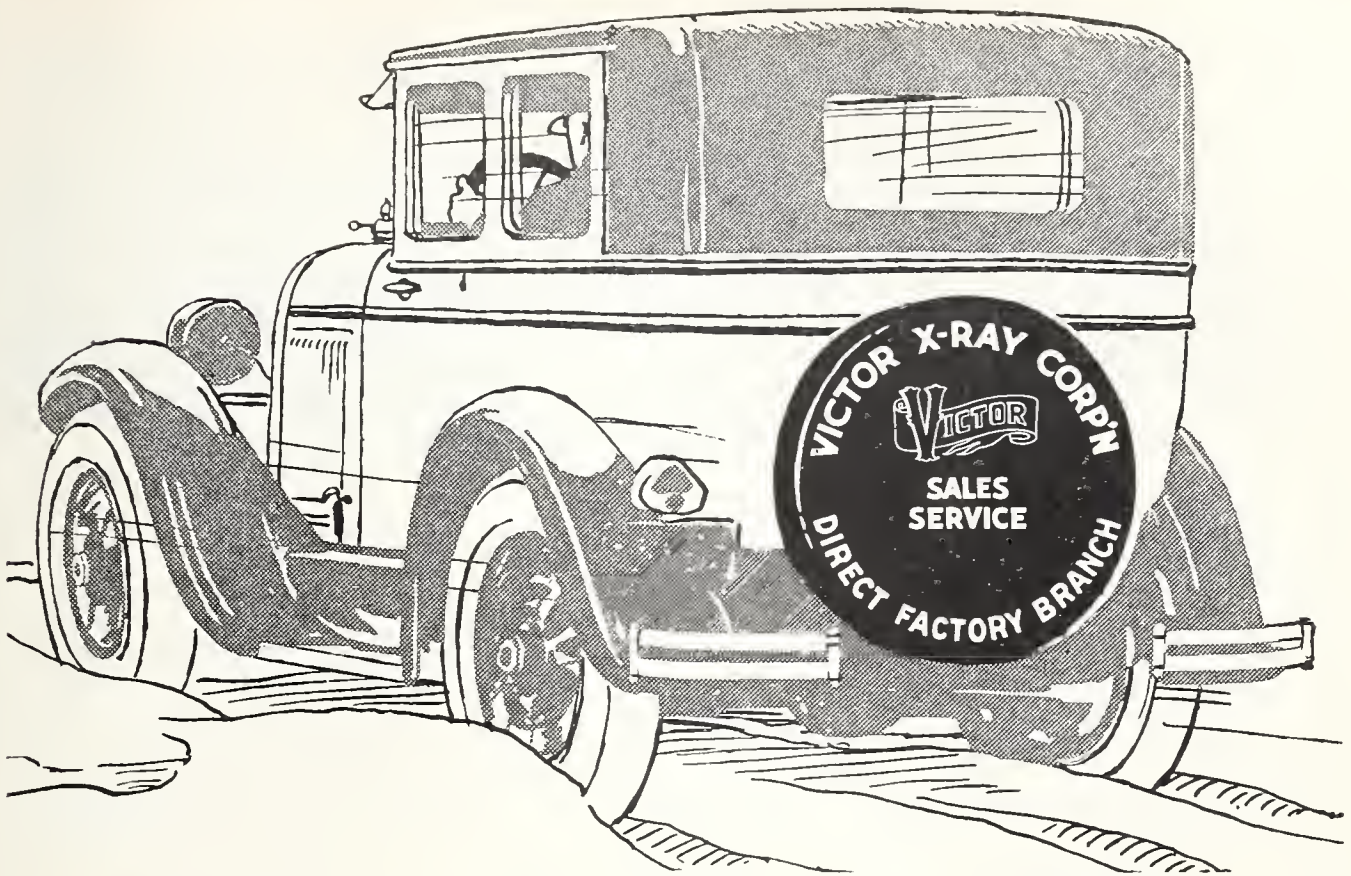
Carrier Caused Montreal Typhoid Epidemic—The Inspector-General of the Provincial Bureau of Health issued a statement, April 21, it is reported, to the effect that the source of the typhoid epidemic had been shown to be an employee of a local dairy. He was a typhoid carrier, and had access to the milk of this dairy after it was pasteurized. This individual has been isolated and is under treatment.—*J. A. M. A.*

University of California Man Invited to Study Hawaii Lepers—Dr. E. L. Walker, professor of tropical medicine at the University of California Medical School has accepted an invitation by the United States Public Health Service to study a number of problems connected with the control of leprosy and other diseases, and is now stationed at the laboratories of the Kahili Leper Station in Honolulu.

It is Doctor Walker's intention to remain in the Hawaiian Islands for a year and then return to the University of California where he has been devoting much effort to the discovery of specific chemical cures for many at present incurable diseases.

He has been appointed a delegate also by the University to the Pan-Pacific Conference on Educational, Rehabilitation, Reclamation, and Recreational Problems in Honolulu.—*University News Service.*

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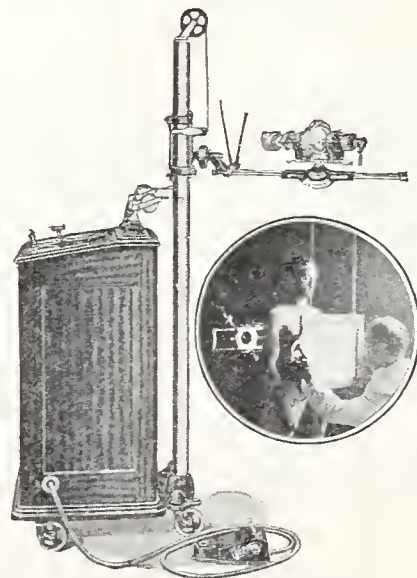
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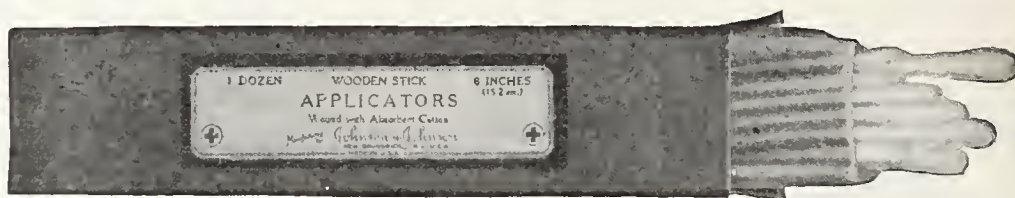
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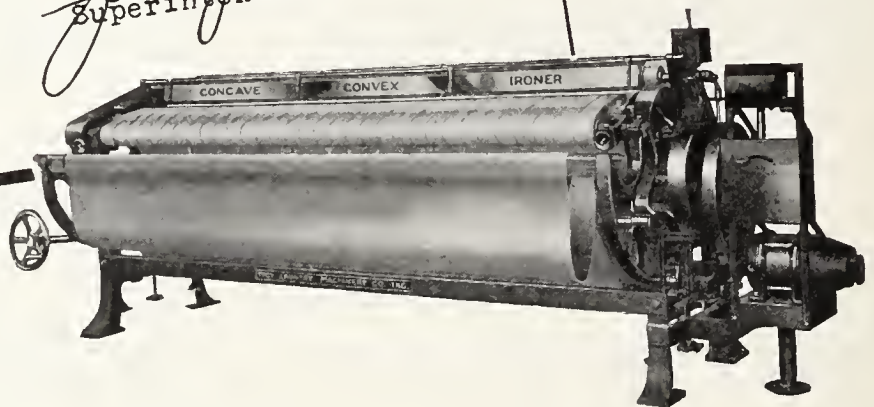
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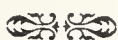
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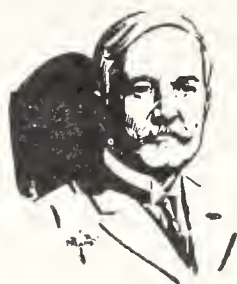


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In an investigation carried on by Doctor Meyer and A. P. Batchelder, in Oakland, it was discovered that there are four rat diseases carried by rodents in that place, namely, hemorrhagic septicemia, plague, rat typhoid, and pseudotuberculosis.—United States Public Health Service.

Before a child can enter public school or kindergarten in Mexico, the Federal Government has ordered that he must be given the Schick test for diphtheria and the Dick test for scarlet fever. Preventive treatment is given in cases of positive reaction, and both tests and treatment are free of charge.—*New Orleans M. and S. J.*

That all babies have a right to their "place in the sun" in order to be assured of normal growth, and that sunlight has the same health-giving qualities on the city fire-escape as at the seashore is the message conveyed to mothers in the new one-reel film "Sun-Babies," which has just been produced by the Children's Bureau of the United States Department of Labor for use throughout the country.—*New Orleans M. and S. J.*

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Abbott Laboratories—Tablets Triturates Ephedrine Hydrochloride (Abbott) $\frac{1}{2}$ grain; Capsules Ephedrine Hydrochloride (Abbott), $\frac{3}{4}$ grain; Ephedrine Hydrochloride Solution (Abbott), 3 per cent.

Parke, Davis & Co.—Glaseptic Ampoules Mercury Salicylate (P. D. & Co.), 0.065 Gm. (1 grain); Glaseptic Ampoules Mercury Salicylate (P. D. & Co.), 0.13 Gm. (2 grains); Glaseptic Ampoules Mercury Succinimide (P. D. & Co.), 0.01 Gm. ($\frac{1}{6}$ grain).

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United States Standard Products Co.—Rabies Vaccine—U. S. S. P. (Semple Method).

New Principle in Surgery of Large Vessels—The new principle in the surgery of the large vessels proposed by Emile Holman and Muriel E. Edwards, San Francisco (*Journal A. M. A.*), consists of ligation of the vein proximal to the site of ligation of the artery. The blood pressure in an extremity may be increased below a divided artery by occlusion of the main vein, the extent of the increase being dependent on the site of ligation of the vein. Experimentally, ligation of the femoral vein increased the blood pressure in the distal end of the divided femoral artery 6 mm. of mercury; ligation of the common iliac vein raised it 20 mm., and ligation of the vena cava raised it 34 mm. The volume flow of blood to an extremity beyond a divided artery is increased by occlusion of the main vein. The extent of this increased

flow also depends on the site of ligation of the vein. Experimentally, the minute volume flow from the distal end of a divided femoral artery was 0.9 cc. of blood; occlusion of the femoral vein increased this minute volume flow to 2 cc.; occlusion of the common iliac vein increased it to 10.6 cc., and occlusion of the vena cava to 11 cc. Gangrene of the extremity occurred in only 7.1 per cent of the animals in which the vena cava was ligated simultaneously with ligation of the common iliac artery, as compared to gangrene in 33.3 per cent of the animals in which the common iliac artery and vein were ligated at the same level. These experiments suggest certain clinical applications. 1. They corroborate the teachings of Makins and others that, in order to decrease the incidence of gangrene, ligation of the main artery to an extremity should be accompanied by ligation of the main vein. 2. It would appear, however, that ligation of the main vein should be done, not at the level of the ligation of the artery, but proximal to the venous tributaries that accompany the arterial branches furnishing the main collateral circulation. Ligation of the vein at this point produces an increased peripheral resistance in the capillary bed normally supplied by these arterial branches, and directs the blood flowing through these branches into channels anastomosing with the more distant arterial vessels. 3. If simultaneous ligation of the vein and artery is performed, and signs of impending gangrene in the extremity appear, ligation of the vein at a considerable distance proximal to the level of the ligation of the artery is indicated. For example, if the popliteal artery and vein have been ligated and gangrene impends, ligation of the common femoral or common iliac vein is in order. 4. Ligation of the main vein to an extremity for improvement of the circulation in thromboangitis obliterans and endarteritis obliterans as advocated by Oppel is justifiable on experimental grounds. Whenever there is a partial obliteration of the arterial tree, with an accompanying reduction in the ease with which blood may flow into an extremity, a corresponding obliteration of the venous bed, with an accompanying reduction in the ease with which blood may flow out of the extremity, is indicated to restore a balance between the two circulatory systems. Thus, in certain instances, may gangrene be averted.

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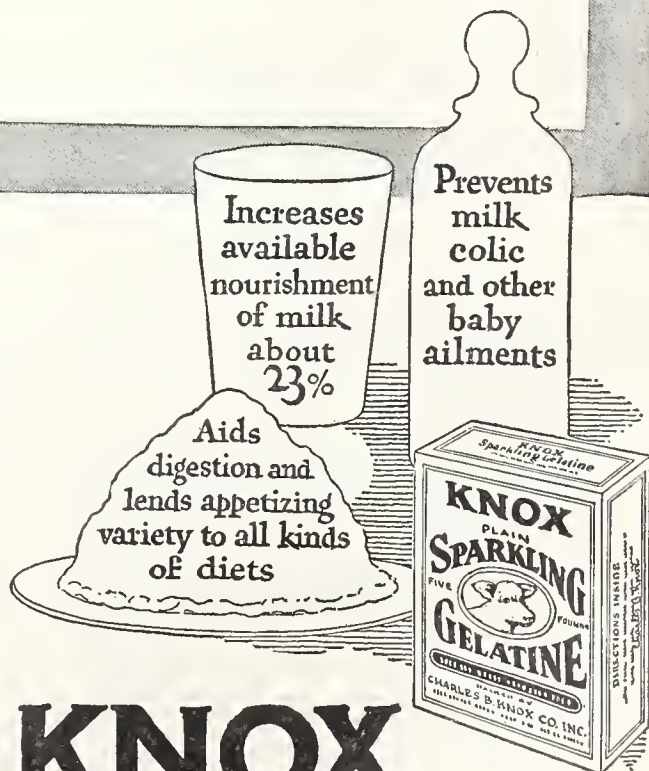
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Ice Cream Now Called Health in Frozen Form—Health in frozen form is the description given ice cream by James A. Tobey in the April issue of *Hygeia*. Because of the carbohydrate contained in this food it is often called frozen heat. It is one of the most valuable of American nutriments and should not be confined to the athletic training tables or to hospitals.

Ice cream, properly made, is simply a concentrated and refined form of milk, and milk is the most nearly perfect food in existence. Adding fruits and other flavors to ice cream merely increases its value as a food. Ice cream, like any very hot or very cold food, should be eaten slowly, and it should be included in the meal and not added after the stomach has been already overcrowded.

Sometimes ice cream is made with condensed or evaporated milk, sometimes with whole milk and cream, but always the process must be free from disease germs. Ice cream, although a typically American dish, was first made in Italy in 1756. It was served for the first time in this country by Dolly Madison at a White House dinner in 1809. It is now popular abroad as well as in America, and is usually advertised in Europe as "American" ice cream.

Smallpox Vaccination Can't Cause Syphilis—One of the most absurd of the antivaccinationists' arguments against smallpox vaccination is the claim that syphilis is caused by these inoculations. The story probably arose from the fact that in the time of Edward Jenner and previous to his discovery, the only protection against smallpox was inoculation with the disease from some other person. Since there was little protection against syphilis, it may have been transmitted in this manner.

At present, however, the vaccine material is prepared from the calf instead of from the human being, and syphilis is a disease confined to human beings alone. During the last ten years a total of almost 11,000,000 persons have been vaccinated without a report anywhere of a single case of syphilis.

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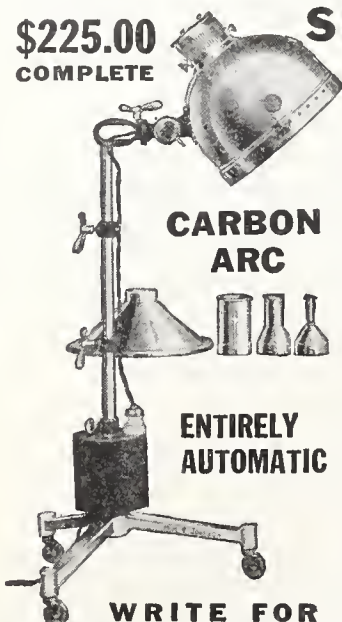
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The Towt-Nolan Laboratory in introducing Lactobacillus Acidophilus Milk (Towt) feels that a much-desired product is being offered to those physicians who follow acidophilus milk therapy. The mass of clinical investigation which has been published during the last year, notable of which is the work of Nicolaus Kopeloff, point to the necessity of using large volumes of acidophilus milk of a high concentration in order to affect a satisfactory transformation of the intestinal flora. Lactobacillus Acidophilus Milk (Towt) is supplied fresh direct from the laboratory in quantities sufficient to supply the patient with at least 480 cubic centimeters daily.

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The United States has enjoyed absolute freedom from yellow fever epidemics for a period of twenty-one years as a result of preventive steps taken by the Public Health Service.—*Med. Times*.

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CALIFORNIA AND WESTERN MEDICINE

VOLUME XXVI

JUNE, 1927

No. 6

PERCY TODD PHILLIPS
PRESIDENT CALIFORNIA MEDICAL ASSOCIATION
1927-1928



AT the close of the second meeting of the fifty-sixth annual session of the House of Delegates the incoming president, Percy Todd Phillips, M. D., was escorted to the presidential chair by Morton R. Gibbons of San Francisco and Harlan Shoemaker of Los Angeles.

Doctor Phillips commended the outgoing president, William T. McArthur, and thanked him for his unfailing kindness and courtesy to all. For himself he expressed appreciation for the honor conferred upon him.

Our new president was graduated in 1889 from the Western Reserve University, took graduate work at the New York Polyclinic, 1893 and 1894; in Chicago, 1896, and in London and Nurnberg, 1901.

The presidential honor is not new to Doctor Phillips. The Nevada State Medical Society, conferred that title upon Doctor Phillips in 1896; he is a past president of his county society. In 1899-1900 Doctor Phillips was the first president of the Nevada Board of Medical Examiners, and since 1917 has continuously been president of the California Board of Medical Examiners.

During the war he served on the District Exemption Board, District 1, Division 2. He is a member of the Santa Cruz County Medical Society, the California and National Associations, and is affiliated also with the California Academy of Medicine, Pacific Coast Association of Railway Surgeons, and is a Fellow of the American College of Surgeons. His published articles deal with surgery and medical economics. His presidential address delivered at the fifty-sixth annual session was published in the April issue of CALIFORNIA AND WESTERN MEDICINE.

MEDICINE IN THE DEPARTMENT OF THE INTERIOR*

By HUBERT WORK, M. D., *Secretary of the Interior*
Washington, D. C.

MAY I speak of the Interior Department's activities in the field of medicine, educational, preventive, and in the application of medical and surgical relief.

The Department of the Interior is also a widespread medical activity of the Government, which carries out its health activity from the frozen fastnesses of the north by means of a floating hospital on the Yukon River in Alaska to the medical care and treatment of the Seminole Indians in the subtropical Everglades of Florida; from its magnificent institutions of research, education, remedial care and disease prevention on the east in Washington, D. C., to the semitropical shores of the Hawaiian Islands on the west.

Between these widely divergent points, the many and varied activities of this department, all encompassed under the general head of medicine, are almost startling in the breadth of their scope and in the means by which they are carried out. They vary from its group of massive institutions in Washington: Howard University, the national university of the negro race in America with its very complete medical college; Freedmen's Hospital, the center for the training of colored physicians of America and for the diffusion of knowledge of hygiene among the colored race of this country; Columbia Institution for the Deaf, where the most advanced methods in the education and training of deaf children are utilized; St. Elizabeth's Hospital, where research by clinic and laboratory, where instruction and training in the problems of psychology, neurology, and pathology of mental diseases, and where studies in mental hygiene and allied subjects are given attention; to the wonderful National Park system of this country, where safeguarding the health of millions of visitors is an urgent problem; to the Geological Survey, where studies and advice on ground waters of the United States for domestic and other purposes are made; to the Bureau of Pensions, with its staff of medical examiners numbering 4500, which provides examinations for thousands of war veterans, wherever they may be found.

The trained nurses of this department carry out their missions of mercy under the shadow of the totem pole in the far north; the field matrons, nurses, and doctors of the Indian Bureau afford relief from sickness, teach hygiene of person and sanitation of home within hearing of the incantations of the Indian medicine man. Its medicines and serums are carried by dog sled, by canoe, by aeroplane, and by the ubiquitous Ford.

Comprising the Department of the Interior are six bureaus and offices, two territories, four eleemosynary institutions, a great national park system, and a railroad. Of these fourteen activities of the department twelve have in part, or very largely, very definite medical activities of some character.

Surveying briefly the many diverse medical func-

tions of this department, we find that the Geological Survey makes investigations of ground water supplies for domestic use, for hospitals, for various states, counties, and municipalities, as well as investigations and reports upon the quality of these water supplies.

The Alaskan Railroad operates a base hospital at Anchorage, Alaska, where during the past fiscal year 1200 patients were treated, 260 surgical operations were performed, and 7973 hospital days relief given.

Our Bureau of Education makes investigations of the status of physical education and hygiene in American colleges; of educational and recreational features of summer camps; of the health of teachers of this country with reference to longevity, absence on account of illness, conditions affecting health, etc.; assists in campaigns with the National Congress of Parents and Teachers to send children to the first grade of school free from disease and physical defects. This bureau is responsible, also, for medical relief to the natives of Alaska, and in this work maintains six hospitals, one on the water which cruised 2200 miles on the Yukon River during the past season of navigation, with its eight physicians and twenty-two nurses. In 1926, 12,434 home visits were made among these native people, 11,147 patients were treated, 34,846 treatments were given, and 6989 days of hospital care provided.

The Bureau of Pensions has on its rolls a half million veterans of the various wars in which this country has been engaged. A large proportion of claims from these beneficiaries require physical re-examinations and a medical rating board to review such claims. This work is done by this bureau of the Interior Department. Its archives, some six millions of files, are veritable storehouses of not only valuable historical data, but genealogical and anthropological information as well.

The two territories under this department, Alaska and Hawaii, through their territorial Boards of Health carry out the usual health measures incident to the prevention and control of reportable diseases, vital statistics, sanitation, etc., to which the department has access.

The territorial Board of Health of Hawaii has a more centralized control of these activities and has to do, as you know, with sanitation, medical inspection of schools, pure food regulations, tuberculosis, leprosy, the operation of hospitals, vital statistics, etc.

The National Park Service administers nineteen national parks and thirty-two national monuments visited by more than two and a quarter million people last year. These recreational and educational playgrounds of America, in area cover more than 15,000 square miles, almost 10,000,000 acres in extent. Safeguarding the health of the millions of visitors to these wonder lands is one of the important functions of the National Park Service, and to this end safe water supplies, sanitary conveniences, properly controlled camping grounds, sewage facilities, mosquito control, and hospital services are provided.

The Columbia Institute for the Deaf, while primarily an educational institution, conducts studies with reference to the hearing of deaf or partially

* Read before the California Medical Association in General Meeting, at the Fifty-Sixth Annual Session, April 28, 1927.

deaf pupils, and to the combining of the senses of touch and sight as aids in the understanding of speech.

Howard University—the national university for the colored race, “the capstone of negro education”—with more than 2000 in its student body representing thirty-seven states and eleven foreign countries, conducts schools of medicine, dentistry, and pharmacy—a Class A institution—whose graduates practice in many states and give professional attention to our colored population.

Freedmen's Hospital, established in 1862, is now a prime factor in the training of colored physicians and in the diffusion of a knowledge of hygiene among colored people of this country. This hospital, covering an area of four city blocks in buildings and grounds, with Howard University in the background, extends its services to the indigent residents of the District of Columbia, to residents of the several states, to emergency cases, and others. During the past fiscal year, 4431 patients were treated, 2030 surgical operations were performed, 2050 anesthetics were administered, 19,262 patients received dispensary treatment, and 124,041 hospital days relief were given. This hospital also conducts a school for nursing for the benefit of the young women of the negro race, and this past year graduated twenty-two nurses, making a total of 423 young colored women holding nurses' diplomas from this school.

St. Elizabeth's Hospital, devoted to the treatment of patients from the District of Columbia, and of present and former members of the military and naval services who are suffering from mental diseases, treated 5114 patients during the past fiscal year and gave to these patients 1,607,095 hospital days relief. Its patients were representatives of seventeen races from thirty-two separate countries; in ages varying from under 15 years to more than 70 years, and with all variations in types and kinds of mental alienation.

St. Elizabeth's Hospital for government insane also conducts a strictly medical and surgical service for somatic conditions, a training school for nurses, instruction courses to students of the Army and Navy Medical schools, George Washington, Georgetown, and Howard universities, and in addition to its many allied clinical and laboratory facilities, carries out extensive research having to do with problems of organic lesions, the cause of, or associated with, mental diseases. Lectures on hygiene and educational problems in connection with mental disorders are also given to various welfare, parent-teacher, and other organizations. The publications of this institution are of high standing in the scientific and medical world. It is an outstanding comprehensive graduate medical school.

The Indian Bureau in its medical activities extends medical and surgical care and relief to approximately 225,000 Indian wards of the Government out of a total Indian population of this country of about 350,000 persons, exclusive of Alaska. It safeguards the health, and by precept and example teaches health and sanitation to almost 65,000 Indian school children in its 207 day schools

and boarding schools scattered over the Indian reservations.

Its field matrons and field nurses visit tepees, hogans, wickiups, and Indian homes of whatever character, to instruct in disease prevention, the sanitation of the home and personal hygiene. Its physicians conduct a rural practice among these Indian reservations where such Indians are unable or unwilling to accept medical care in the hospitals provided for their use. It is significant that year by year an increasing number of Indian babies are born in Indian Service hospitals.

The Indian Bureau also operates sanatoria and sanatorium schools, the former for the advanced cases of tuberculosis and the latter for the incipient cases among school children. It has a group of special physicians who travel from reservation to reservation where those suffering from trachoma, a veritable scourge among the Indian population of this country, may be treated. During the fiscal year past, more than 30,000 Indian patients were treated in the ninety-one hospitals of this bureau and 523,599 days of hospital relief were given. In the past two years, 36,218 Indians suffering from trachoma have been treated by surgical or medical procedure. This bureau has more than 120 full-time field physicians, 64 part-time physicians, 10 special physicians, 7 dentists, 138 nurses, and 37 field matrons engaged in this work. The Indian Medical Service has been reorganized with trained physicians assigned from the United States Public Health Service who officer the key positions of this service.

Summarizing briefly, there are conducted under this department more than 100 hospitals in which were provided during the past year 2,269,697 days of hospital relief; it teaches preventive medicine, extends relief, etc., to almost a quarter of a million of primitive people of this country; carries on researches into the causes of diseases of man; teaches the blind; enlightens the ignorant; safeguards the health in play and work of millions of our people in their daily life.

In these functions, it works in close cooperation with local, county, state, federal, and voluntary health organizations throughout the country, whose aid and assistance have contributed in no small part to the results so sketchily outlined here. In cooperation with other agencies, the Red Cross has provided nurses and nutrition workers; associations interested in the welfare of the Indians have provided services of various character; in states where there are large Indian populations their health agencies have and are working in health matters affecting Indians; religious organizations, women's clubs, etc., have contributed their great part; the Veterans' Bureau and state laboratories have been made available, and the United States Public Health Service has in very large measure made available both its facilities and its personnel. Such cooperation and services are here gratefully acknowledged.

The Interior Department has been described as “the fact-finding department for internal development”; “A Federal university for the people”; its mission is largely educational with many of its activities devoted to the discovery and dissemination of knowledge; with a curriculum covering many fields

of learning and its "faculty" including hundreds of scientists, specialists and professional men; its "student body," the people of the United States.

It is fact finding in that it searches out the presence of sickness, malnutrition, and insanitary conditions and distress and poverty among the primitive peoples of this country with the purpose of curing such disease, eliminating such insanitary conditions and relieving the distress and poverty by the application of remedial measures both with respect to disease conditions and in the building up of a better economic status among these people. Its nurses, its doctors, its matrons, its skilled specialists, are teaching preventive medicine as well as curative medicine to the thousands of beneficiaries of our Government through this department.

In the Interior Department medicine has come to mean the practice of theories of health which have been proven by experience together with the art and science of curing the sick.

THE PROFIT AND LOSS ACCOUNT OF MODERN MEDICINE*

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WONDERFUL progress has been made in medicine during recent years, but the profit has been attended by a loss which must be considered in balancing the account. In taking stock of the gain we will find inspiration for the future; in counting the cost we may guard against the undue sacrifices of the past.

The most distinct profit and loss are seen in medical education. About two decades ago it was recognized that an increasing number of low-grade practitioners were being graduated each year by medical colleges and licensed by state governments. An investigation of the medical schools showed that many of them were poorly equipped, had scant clinical material and lacked sufficient funds to secure the necessary time of efficient teachers. A deliberate and systematic movement was inaugurated to remedy this evil. By moral suasion, by state legislation and by the combined efforts of the better schools, the entrance requirements were advanced, the number and length of the teaching sessions were increased, the character and scope of the curricula were improved, and the minimum number and approximate pay of the full-time teachers were specified.

The result of this propaganda has been that the total number of medical schools in the United States has been reduced from 160 to 80, and the total number of medical students from 28,142 to 18,840. In other words, eighty medical schools, weak either educationally or financially, have ceased to teach, and 10,000 medical students not properly qualified for the profession have ceased to study.

The benefit of this movement is already markedly seen in the medical colleges, where the qualifications of the student are found improved and the character of the instruction more satisfactory. There has not yet been time for the benefit of the change

to be very apparent in medical practice, but the lessened number and improved quality of the graduates turned out each year will unquestionably in the end result in a great improvement in the ethics and efficiency of the profession.

The profit, however, has not been without its loss, and while we congratulate ourselves on what has been gained by this educational movement, it is only just to count what it has cost. Many worthy, although struggling, colleges have been put out of existence and their property practically confiscated, and many earnest and promising young men have been denied an opportunity to study medicine because of some defect in their preliminary high school or college education. Again, the modern medical school is not self-supporting and is a heavy financial tax on public funds or private philanthropy. Expensive laboratories, salaries of full-time instructors and the necessary provisions for clinical teaching, impose a cost that can never again be met by tuition fees. If each student were charged what it actually cost to teach him, none but the rich could afford to study medicine. The rich, as a rule, do not care to become doctors, and as doctors are a necessity and not a luxury the rich will have to be educated to contribute of their wealth to make doctors. Medical education has ceased to be a business and become a philanthropic work which must be supported by state appropriations and individual benefactions.

Finally the cost of the modern method of teaching is seen in the graduate himself. If he has not paid in money he has been made to pay in time for his education. He has been kept in the laboratory, lecture hall and the hospital ward, a nonproducer, dependent on others for his support, until he reaches an age at which most of his contemporaries are married and settled in life. He is conscious of the sacrifice he has made, and usually overappreciative of the attainments he has acquired. He desires to be a specialist, and will only do general practice as a means to an end. He is determined to locate in a city and unwilling to settle in the country, preferring to starve himself in the one rather than to starve his ambitions in the other.

This results in an urban congestion and rural depletion of medical men which has reached a point to give serious concern, and for which some remedy must be found. It has been proposed that special medical schools be operated to produce low-grade practitioners for country consumption; but this is impracticable and unthinkable.

The remedy for the evil is to make country practice less arduous and more profitable, and it is hoped that this will come about in time with the evolution of our social, economic, and political life. When we compare the conditions that exist in the country today with those which existed even twenty years ago, and recall the changes that have resulted from the good-roads movement, the development of the automobile, the installation of the telephone, phonograph and radio, the introduction of the parcel post and rural mail delivery, the improvement of the public school system, the perfection of heating and lighting plants and the invention of labor-saving machinery, it is not difficult to believe that in the not far distant future the life of the country doctor

* Read before the California Medical Association in General Meeting at the Fifty-Sixth Annual Session. April 25-28, 1927.

will become one that will attract and hold the best representatives of the profession.

Having considered the profit and loss account of modern medical education we now come to what we have gained and lost in the doctor himself. The physician of the old school was usually a gentleman by birth and breeding. He was given a classical education, not because of his future profession, but because it was a privilege accorded his brothers as well as himself, without reference to their future vocations in life. His preparation for practice consisted in reading medicine for a few months in a preceptor's office and then attending lectures for one or two years at a medical college. His very lack of technical training gave him independence and resourcefulness, and with experience he gained an ability to make a diagnosis by intuition and to apply treatment, which, while often empirical, was usually effective. He was no specialist but attended every member of the household, because a family was a unit and his art was catholic. He knew the constitution of his patient because neighbor married neighbor and lived where they were born. He was not only physician but friend, confidant and counselor as well. In his personal affairs he was unbusinesslike, rarely sending bills, but accepting such honoraria as were tendered him in settlement of his accounts. In public affairs he was prominent, and his views and opinion had weight in matters of church and state. He had his weaknesses and his faults. Measured by modern standards he was ignorant and sometimes mischievous, but he served well his day and generation and was a most lovable old aristocrat.

The modern medical man begins to be trained for his profession while yet a boy. His preliminary education in high school and college is scientific rather than classical, and gives him knowledge rather than culture. When he completes his four years' course in a medical college and one year postgraduate work in a hospital he represents an investment in time and money covering a period of from fourteen to sixteen years. He is no longer a boy, but an eminently practical man, and he regards his calling as more a business than a profession. He recognizes the fact that he lives in an age of specialization, that no one man can now meet all the professional needs of a patient, and that the day of the domination of the family physician on the one hand and the dependence of the family on the other has passed. He understands that with the freedom now customary of choosing different attendants to treat separate ailments, the factors of social position, family connection and even personal friendship count for little, but that a doctor is employed because he is believed to be the most efficient man available to relieve the patient or cure the disease. He recognizes the necessity of sobriety, industry, honesty and clean living, but he also knows that the public no longer measures experience by age, virtue by matrimony, or morality by affiliation with the church, and that the first and last prerequisite for success is professional ability.

Such being the situation with which he has to deal the modern medical man early chooses a special line of work, and devotes every effort and util-

izes every opportunity to perfect himself in it. His attitude to the public has changed, and he no longer cloaks his reasons in secrecy or his actions in mystery, but deals frankly with his patients, explains cause and effect, and secures their cooperation in carrying out treatment. The modern doctor has discarded the silk hat and frock coat of his predecessor and put on the sack suit of the business man. In a sense he has become commercial. His offices are not only provided with instruments of diagnostic precision, but also with the most modern methods of keeping accounts and collecting fees.

From the foregoing crude pen picture must be inferred what has been the profit and what the loss to the public and to the profession from the modern doctor. We have lost a character dear to literature, and gained a successor perhaps less ethical and more mercenary, but certainly a scientific instrument of greater professional efficiency.

The development of the modern specialist is a source of both profit and loss to medicine. The profit is too apparent to need emphasis. The specialist, by concentration of study and limitation of practice to certain definite organs or diseases, is able in a few years to acquire a greater diagnostic skill and more successful methods of treatment in his special line of work than another man of equal ability would obtain in a lifetime of general practice.

The presence of a specialist in a community not only gives to patients suffering with certain diseases opportunities for efficient treatment, but also offers to the surgeon and general practitioner a consultant whose opinion and advice are often invaluable. While the profit side of the specialist's account is large, still on the opposite page we find some items of loss. The high esteem in which the specialist is held, and the pecuniary rewards which his services command have made him a victim of imitators and impostors, both inside and outside the pale of profession. Modern medicine is not responsible for the quacks and charlatans, but it is responsible for the members of the regular profession found in every town and city who claim to be specialists, but who really do a general practice, and for others who, while they may limit their work to certain diseases, are not qualified as experts, and have no more knowledge or experience than the average general practitioner.

Again the specialist, although an expert, is often narrow in his views and prejudiced in his opinions, so that he finds explanations for every symptom in the derangement of the organs he treats. His patients often suffer from special attention and general neglect. Moles are pulled out of the eyes and beams are left in the belly, or the abdomen is invaded for real or supposed appendicitis, and the lungs are left to fight their own battle with tuberculosis.

Finally, the specialist is an expensive friend to the patient. It is an everyday experience for the surgeon or general practitioner to send an obscure case, first to the pathologist for the examination of his blood, urine and sputum, then perhaps in turn to the roentgenologist, the cystoscopist, the ophthalmologist, and the dermatologist. The patient goes the rounds submitting himself to exhaustive exami-

nations and his pocketbook to depletion. The system is not essentially wrong. Unquestionably the patient is better cared for than formerly. To the well-to-do, while the cost is great, it is not prohibitory. To the poor, the public and private charities are open where they can get the same services dispensed in no less efficient but in less luxurious fashion. The real sufferer is the great middle class. Caught between penury and pride, without the price to pay but with the desire to conceal their poverty, they are often limited to an inferior grade of service.

Teamwork is essential to carry out the modern system of examinations. It is best seen in the staff of a dispensary where every patient has at his command the services of specialists in all diagnostic lines. This method has given such satisfactory professional services to the poor that an attempt is now being made in numerous parts of the country to apply it to those who are able to pay in the form of the modern medical clinic.

These clinics consist of a number of physicians, surgeons, and specialists united as a firm or corporation who occupy a building especially designed for the purpose to which it is devoted where patients can be conveniently, expeditiously and efficiently examined and treated and charged a combined bill through a central office for the entire services rendered.

The advantages of a clinic to a patient are that he has immediately available the opinion and advice of various specialists. He has the benefit of laboratories equipped with instruments of modern diagnostic precision. He is carefully and systematically examined and abnormal conditions of which he was ignorant are often discovered in time for their arrest or cure. He is charged a single fee for the diagnostic study of his case which does not exceed a fixed amount. The objections of the system to a patient are that to a degree he sacrifices his individuality and becomes less a person and more a case. He has to trust to the reputation of the clinic for the ability of the specialists to whom he is referred, and while all clinics have specialists it is equally true that all specialists are not experts.

He is subjected to a routine method of examination which works the greatest good to the greatest number, but sometimes imposes an individual hardship, as it may yield negative results, and the only benefit to the patient is the satisfaction of knowing he has been thoroughly studied and that he has no organic disease. Again a patient may learn from a complete examination that he has some unimportant physical disability of which he was previously ignorant, and once possessed of this knowledge he may be obsessed with a desire to have it corrected and insist on submitting himself to unnecessary or even injurious treatment.

The advantages that a clinic offers to a member of its staff are that he is free from professional expenses and has a guaranteed salary, and if the clinic prospers he will prosper with it. He is relieved of business worries that go with private practice and can devote his time and thought to professional work. He works in an agreeable atmosphere, comes into frequent contact with congenial associates, and is stimulated mentally by the pro-

fessional problems that are discussed daily at small conferences and more formally at the regular meetings of the staff. The greatest joy, however, comes from his satisfaction of feeling that he has the opportunity and facilities for doing high-class work, and that in doubtful cases he can share responsibility by calling in consultation other members of the staff in whom he has trust and confidence.

The objections of the system to a member of the staff are financial and personal. No mature professional man who has achieved marked financial success can become a member of a clinic with the expectation that his salary will ever be as large as the money he previously earned in private practice, and no young man beginning the practice of medicine can enter a clinic with the hope that he will ever earn as much money as he would do if he ultimately attained conspicuous success in private practice.

The answer to the objection as it applies to the older man is that if he continues his work as an individual he must struggle on despite failing strength and health, and when he dies his work dies with him, whereas if he becomes a member of a clinic he can retire gradually and gracefully, and when he dies his work will be carried on by the organization. The answer to the objection as it applies to the younger man is that the salary paid by the clinic offers the certainty of a comfortable living, that the work in the clinic gives him a training and experience which will lead to the development of his professional ability, and that if later in life he is dissatisfied with the position in which he finds himself he can resign from the staff when an advantageous opportunity offers.

The personal objections are a little more difficult to state and answer. A man when he becomes a member of the staff of a clinic loses in some degree his independence and in all of his actions he will have to consider how what he does will effect the interest of the clinic. Again, becoming a member of a clinic, while it tends to closer personal friendships within the organization, sometimes leads to a narrowing of the circle of acquaintances, or even possibly the alienation of former friends. It is very important for a clinic to minimize this danger by the adoption of a proper policy and the maintenance of a generous attitude to the general medical profession. If this is not done the members of the staff may suffer from professional isolation and even professional ostracism.

A medical clinic is no royal road to success. At the beginning the sum total of the patronage will be less than the sum total of the patronage of the individuals who constitute the staff. If the patronage grows, it will be for the same reason that the individual succeeds, namely, a recognition by the public and profession of satisfactory service rendered.

While a medical clinic is a business enterprise and its primary purpose is the care of the individual patient, it would be a poor group of professional men who would not strive to develop the possibilities it affords for philanthropic, educational, and scientific work. Means should be provided for the examination and treatment of indigent patients,

courses should be established for the instruction of nurses, dietitians, technicians and medical graduates, an advantage should be taken of the opportunity offered by the combination of clinical and laboratory facilities to carry on research work.

To achieve its highest success, a medical clinic should not only have a body and a brain, but a conscience and a soul as well.

One of the most wonderful gains made in modern medicine is in the exact diagnosis of disease by laboratory methods. For a time our knowledge of etiology and pathology was vague and indefinite, but one after another great discoverers have cleared the field and given us definite facts with which to work. Diatheses and dyscrasias, miasmatic and idiopathic diseases are no longer mentioned; the terms scrofula, blood poison and typhomalarial fever are no longer employed, and even the identity of neurasthenia and autointoxication are questioned.

We now diagnose the existence of tuberculosis, not by hectic fever, but by the demonstration of Koch's bacillus. We diagnose malaria, not by the therapeutic test of quinin, but by the presence of the plasmodium of Laveran. Widal has given us the agglutination test for typhoid and Wassermann the reaction which shows the presence or absence of syphilis. The white blood count tells the degree of infection and resistance of the patient, and is not only a test of importance in making prognosis, but often indicates the proper time for intervention. The microscopic examination of tissue differentiates benign from malignant tumors, and in operation for cancer the frozen section will often tell the surgeon when he has reached the limit of the disease. The x-ray shows the existence of fractures and the position of fragments, locates the presence of stones in the kidney, ureter or bladder, and by perfection of technique demonstrates the passage of a test meal from the stomach to the rectum, and even visualizes the filling and emptying of the gall bladder with bile.

The inspection of the modern laboratory is impressive to the visitor. The rows of reagents, reagents and test tubes; the microscopes, centrifuges and microtomes; the refrigerators, incubators and culture media; the polariscopes, hematocytometers, sphygmomanometers and other instruments of precision make a layman, and even some of the profession, think that the work done and the final report made must settle all questions in a given case.

But the laboratory method of diagnosis entails a loss as well as a gain, and has its dangers and disadvantages. While it is true that chemical reactions are always constant, that the microscopic field shows the cellular structure of tissue and the physical form of bacteria, and that the x-ray picture truly depicts the shadow of the object between the Crooke's tube and the photographic plate, it must always be remembered that there is a personal and uncertain factor in the result, namely, the laboratory man who construes what he sees. A poor pathologist or roentgenologist is worse than none at all, and even the opinion of the most experienced and proficient is occasionally wrong.

As valuable as are his services, the laboratory man

is sometimes too highly regarded. Seated upon his kingly stool and surrounded by a rarefied scientific atmosphere, he tends to tyrannize the clinician. His reports are too often accepted as final in their decrees and become enervating in their influence. Owing to a tendency to lean too much on laboratory reports, case histories and bedside records, the profession is in danger of neglecting the examination of the patient. Sick people are just as instructive today as in the time of Sydenham, Addison, and Bright. Laboratory data and clinical findings must be studied together. They must be compared, and one used to check a possible error of the other.

The hospital, while an old institution, is modern in its distribution and function. It has lived down its stigma of a death house. It has overcome the prejudices of the masses and appealed to the pride of the classes. Practically every town of 5000 inhabitants has a hospital, and every well-regulated hospital is an asset to its community. A hospital is now accepted as the safest, most comfortable and most economical place for the seriously sick, and it is also recognized as a local center for the dissemination of knowledge among the public, the training and education of nurses, and the uplift of the profession by the demands made for good records, thorough examinations, accurate diagnoses, and rational treatment.

The modern hospital, however, is not without its dangers and disadvantages, as it offers opportunity and hence temptation to members of its staff, especially those with surgical ambition, to undertake work for which they are not qualified. The following is a familiar illustration: A small town feels the need of a hospital. The women organize, raise the money and build one. The people of this community had formerly made it a practice to go to some neighboring city when in need of special medical treatment or a serious surgical operation. They are now urged to patronize the home hospital, and as that course appeals to their desire to help a local institution, and also avoids separation from family and friends, the advice is often followed. For a time an experienced surgeon is sent for to operate on difficult cases, and one of the local practitioners acts as his assistant. The successful result which usually follows in these early cases inspires the community with confidence in the hospital, and in time creates a desire in the mind of the local man to do the work himself. He spends six weeks or three months at a postgraduate school, and returns with a highly embellished certificate. He performs a herniotomy or removes an appendix and the patient does not die. He comes to be known in the community as a man of wonderful nerve. He hopes later to drop his other work and do nothing but surgery.

The evil goes further. This newly developed surgeon has no regular assistant, and makes it a rule to get the family doctor of the patient to help him with the operation. As the physician does part of the work it seems only proper that he should get part of the fee. When this practitioner has a patient who desires to go to a specialist in a large city, what is more natural than that he should go with him, and explain that he was reluctant to come be-

cause of the loss of the financial benefit he was accustomed to receive from such cases at home; or what more human than for the city surgeon to endeavor to meet this competition by offering to split the fee in this and future cases provided it was made sufficiently large; and what more necessary than that this secret understanding between the two be kept from the knowledge of the patient. And so has come about the great modern evil of the secret division of the fee, a practice by which the doctor sells the patient to the highest bidder, and by which the surgeon robs the patient to pay the doctor.

The evil of incompetency in the shape of the unqualified surgeon, and the vice of dishonesty in the form of the secret division of the fee, are being fought in the profession by the American College of Surgeons and other organizations. If the remedy is not found, action will be taken sooner or later by an indignant public through state legislation.

The advent of the trained nurse marked the epoch in medicine almost equal to the introduction of anesthesia and antiseptics, and the name of the founder of the order, Florence Nightingale, deserves to rank with those of Long, Pasteur, and Lister. The rapid and general adoption of the trained nurse was due not only to the professional needs of the doctor, but also to the domestic necessities of the public. In times past a sick person was nursed by servants and relatives. In every family there were old mammies and old maids who had considerable practical experience in nursing, and who derived a certain morbid pleasure from the temporary authority of the sick room. The modern servant problem, and the recent migration of the unmarried female members of the family from the home to the office, did away with the supply of amateur nurses and created a demand for the professional nurse.

At one time there were but two respectable things for a young woman to do, get married or teach school. Now many avenues are open to them, and of these none is more attractive or offers greater opportunities for service than the field of nursing.

Time will not permit an attempt to show the contributions of the trained nurse to the progress of medicine. In every department she has proved a faithful, efficient and trusted worker, without whose aid the end attained could not have been accomplished. At the bedside of the patient in the silent vigils of the night, in the operating room during the stress and strain of nerve-racking ordeals, and recently in Europe on battlefields torn with shell and red with carnage, she has shown a courage, a fixity of purpose and a devotion to duty rarely equaled in either sex or in any profession.

The nurse is a woman and therefore has her faults, but the faults are those of a woman, not of the nurse. If she is sometimes spoiled, occasionally a trifle tyrannical, and more rarely a bit supercilious from real or supposed superiority of knowledge, it shows the weakness of her sex and not of her profession. If her services are sometimes prostituted to

pamper the whims of the neurasthenic invalid, or to indulge the selfish indolence of the idle rich, it is not her fault but the fault of our present system of living.

The medical society is an important factor in the progress and development of medicine. While some members of the profession do not appreciate the advantages to be derived from regular attendance and active cooperation in medical organizations, it is a fact that the busy and successful practitioners are usually present at all the meetings of their county, state, and national associations. This can only be explained by the fact that those of the profession whose experience and judgment have proved to be the soundest believe that medical meetings are profitable.

Medical societies usually hold their regular sessions in different cities, and their meetings educate and stimulate the local profession, and advertise to the laity the fact that medicine is not bound by dicta and dogmas, but is a progressive science ready to discard the old if it is proved to be fallacious, and to adopt the new if it is found to be of value. The meeting of a medical society enables its members to read papers, thus giving them a legitimate opportunity to show their capacity; and to present new and original views as to the treatment of disease, thus adding to the knowledge of the profession. It enables its members to hear papers read by others, thus giving them an opportunity to gain an amount of information they could get in no other way with so little labor and in so short a length of time. The discussions that follow these papers are especially profitable. In them is an impressive personal element that is totally lost in the stenographic report published in the transactions.

In addition to the educational and professional advantages derived from these meetings there are the equally important social and personal benefits. The occasion is a holiday, a recreation, a vacation. It breaks the monotony of life and enables a man to do better work when he returns home. It offers the opportunity to meet men who are doing the same kind of work in different sections of the country, and results in pleasing and profitable acquaintanceships which often lead to permanent friendships. And last but not least, it brings together men who live in the same community but who, owing to petty jealousies or lack of time for social intercourse, see little of each other. Either in the session of the society, or in the committee room, or on the journey to and from the place of meeting, they are thrown into an intimate contact which frequently leads to explanation of misunderstandings, adjustment of differences, appreciation of good qualities, and to the establishment of the most friendly and cordial relations.

Despite the manifest and manifold benefits of the medical society, it is necessary from the profit to deduct a loss. There are many medical societies which have no right of being, and have been organized simply for political or personal motives. Originally established to give office or secure patronage

for a certain group of men, they are often supported for years through a mistaken pride or patriotism on the part of their members, to the great injury of the legitimate societies whose territories they cover. There is need for a movement to standardize medical associations, and until this is done through the proper channel the profession should try to minimize the evil by withdrawing its membership from superfluous organizations.

Twenty years ago it was considered derogatory to the dignity of one clinician to visit the workshop of another. To do so would be to invite the criticism of a confessed inferiority, or of a desire to spy on the work of a competitor. Then all one practitioner knew of the work of the other was through printed matter, and some things that were true were not believed and some things that were not true were accepted. It has now become almost a custom for a busy surgeon and physician to devote two or three weeks of the period previously assigned for a vacation to the duty of seeing, at first hand, what his fellows are doing. At the various recognized medical centers every provision is made for the convenience and instruction of visiting doctors. No fees are charged and the veriest stranger is made to feel welcome. By actually observing the methods practiced in these various clinics the visitor is able to decide whether or not they are preferable to the technique he had hitherto employed.

Surgeons as a rule attend clinics more frequently than do physicians. This is a pity, for even in a strictly surgical clinic the points of greatest interest are not the methods of operating, but the explanation of symptoms by the pathological conditions found. It is a curious fact that many physicians who would travel miles to see a post-mortem examination will not go around the corner to witness an operation which demonstrates the same changes produced by disease in living tissues before they are obscured by terminal results. To correct the loss entailed by the failure of the average physician to avail himself fully of the advantages offered by the modern clinic the internist must learn that to keep abreast of the times it is necessary not only to study but to travel as well.

Time will not permit a record here of the victories that have been achieved in preventive medicines, beginning with smallpox and now approaching a successful issue in the case of yellow fever, malaria, typhoid, and other diseases. The completion of the Panama Canal, a task rendered possible only by the sanitary regulation promulgated and enforced by Surgeon-General Gorgas, stands as an unquestioned tribute and enduring monument to the perfection and efficiency of the measures which modern science has developed for the maintenance of health and the prevention of disease.

The Public Health Service is now recognized as one of the most important departments of our general and local government. The work in this service offers the present-day graduate one of the most attractive fields open to him. It does not hold out the promise of fortune that goes with rare eminence

in private practice, but it guarantees to every worker a reasonable income, the opportunity for scientific study and research, the certainty of performing a useful service for his community, and the possibility of becoming a great benefactor to the human race.

Public health work marked the beginning of a new era in the relations between the profession and the public. It was characterized by an effort on the part of the profession to take the public into its confidence. Its purpose was to make the people a partner in the conservation of health. A short time ago if a doctor addressed a lay audience on a medical subject his motives were questioned. Now the profession employs every agency of publicity to spread the propaganda against disease. The columns of the newspapers and magazines, the walls of public conveyances, the lecture platform, the pulpit, the school, and the drama, warn and plead against the danger of the mosquito and house fly, the communicability of tuberculosis, the insidiousness of cancer, and the pathos of "Damaged Goods."

Publicity in medical matters has undoubtedly done good, but it has also done harm, and here as elsewhere we must record not only the profit but the loss.

The first loss is seen in the schools, for an examination of the textbooks employed in physiology and hygiene will show that just as at one time our children were taught false history, so now they are often taught false science. Another evil is the attempt to teach sex hygiene. It is a difficult question to decide in an individual case when and how to impart this delicate information. If parents hesitate to discuss the matter with their child at home, it is certainly an evasion of responsibility attended by great danger to turn the subject over to an old-maid teacher to deal with in a mixed school.

Finally, while ignorance is not innocence, the general information given the laity on medical subjects has caused a loss of one of those indefinite charms formerly possessed by women. Matters are now discussed in a mixed audience with a freedom and frankness that would have been thought unbelievable a generation ago. Beginning with co-education and equal suffrage, subjects suggestive of sex differences, the field of activity of the female mind has broadened, until now the average high-school girl is more or less familiar with the problems embraced under the terms eugenics, race suicide, the social evil, the age of consent, the white slave traffic, and the regulation of the red light district.

The woman of today has lost her prudery. Let her beware lest she lose her modesty as well! If such should prove the case it would be necessary to change from the credit to the debit side the balance now found in the "Profit and Loss Account of Modern Medicine."

NOTE: The paper by J. Edward Harbinson, M.D., and John D. Lawson, M.D., of Woodland Clinic on the "Treatment of Erysipelas by Roentgen Ray," published in the April, 1927, issue of CALIFORNIA AND WESTERN MEDICINE, was read before the California Northern District Medical Society on May 27, 1926.

THE DIAGNOSIS OF DRUNKENNESS—A QUANTITATIVE STUDY OF ACUTE ALCOHOLIC INTOXICATION*

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THE tremendous increase of automotive traffic, with its greater speed and consequent greatly increased possibilities for serious accidents, and the difficulties incident to the enforcement of the laws arising out of the prohibition amendment to the Constitution have thrown upon the physician many more problems and increased responsibilities in connection with the diagnosis of acute alcoholic intoxication and the determination of the degree of inebriety and its relationship to subsequent acts of the individual. The multitude of other pathological conditions, moreover, which may be either masked or mimicked by the symptoms of drunkenness, emphasize to the conscientious doctor the importance of properly evaluating this factor in the examination of his patients.

The recognition of acute alcoholic intoxication may appear to present few difficulties to the untrained mind. The odor of alcohol, dilated pupils, flushed face, red nose, muscular incoordination affecting the legs, arms, and the organs of speech, with consequent staggering, swaying, reeling, groping and shaking, with slurred, confused or thick speech, alterations in behavior, with removal of normal inhibitions, garrulousness, euphoria, boisterousness, pugnacity, sluggishness, even stupor or actual coma, are commonly recognized features of this condition, which are readily discernible.

But a person may be under the influence of alcohol to an extent that seriously affects his powers and behavior, especially in such a responsible situation as driving an automobile, without presenting the entire common syndrome of drunkenness. On the other hand, not a few of the symptoms of this condition may be simulated by other conditions besides acute alcoholism. Besides those individuals who naturally exhibit some of the characteristics associated with alcoholic intoxication, or who have some congenital or acquired defect which results in such manifestations, as in many cases of vasomotor instability where dilated pupils and flushed face are constant findings, or instances of tongue-tie or stuttering and stammering, or of constitutional psychopathic inferiority with behavior peculiarities, there are a large number of pathological conditions which may produce such symptoms. Thus any acute febrile disturbance, thyrotoxicosis, or hypoglycemia resulting from insulinism, with dilated pupils, tremors, flushed face, etc., and any number of local conditions affecting the eyes, nose, or the limbs, may produce symptoms similar to acute alcoholism. So also may the lesions of the central nervous system, such as skull fracture or intracranial hemorrhage following an accident, syphilis of the brain or cord, as locomotor ataxia or paresis, multiple sclerosis,

brain tumor, Friedreich's ataxia, pernicious anemia with cord changes, early meningitis, etc.

Under the circumstances that generally prevail at the time of the usual examination for intoxication, following an accident, shock or arrest, confusing functional disturbances are apt to occur. Of course, the differentiation between all of these conditions and acute alcoholic intoxication may be readily made in the majority of instances by the absence or presence of other signs or symptoms essential for the diagnosis, but this is not always the case, and it must not be forgotten that a man suffering from one of these other conditions may, and frequently does, also suffer from the effects of drinking alcoholic liquors.

The odor of ethyl alcohol is so distinctive and marked that most people can readily identify it on the breath of a person who has recently indulged. Little argument is required, however, that the odor of alcohol is not in itself sufficient to make a diagnosis of alcoholism, since a small quantity of alcohol, far too small to have any physiological effects of the magnitude which would justify such a diagnosis, might still be amply sufficient to cause a recognizable odor around the mouth and breath of the patient. The remarkably widespread use and availability of alcoholic beverages make it difficult to state just what was the relationship between the alcohol imbibed and the symptoms, or even whether it had been absorbed at all, or simply thrust between the lips of an unconscious patient, as sometimes occurs following fainting or accidents. On the other hand, the presence of other strong odors, as every toper knows, may effectually hide or disguise the odor of liquor; thus garlic, any of the essential oils, as cloves, filthy mouth conditions or pyorrhea with consequent halitosis, acidosis with acetone in the breath, uremia or an ammoniacal breath and many other conditions may make it impossible to rely upon this simple test.

Nevertheless accurate determination of the concentration of alcohol present in the tissues of the subject offers a possible means for ascertaining the degree of alcoholic intoxication. Numerous workers have reported that alcohol, like most other drugs, produces effects directly proportional to the amount of the substance in the tissues, and a number of observers have attempted to use the concentration of alcohol in the blood as an index to the psychological and physiological state of the patient. It has been shown that alcohol, taken by mouth, becomes quite uniformly distributed throughout the body very rapidly after it has been administered, reaching its maximum concentration in the blood usually within an hour. It then gradually lessens as the alcohol is oxidized in the body, which has been found to occur at the rate of about 10 grams per hour in the average human subject. Since the concentration of alcohol in the urine is usually equal or slightly greater than that in the blood, and the amount excreted through the expired air also bears a constant relationship to the concentration in the blood, the determination of the alcoholic content of these excretions may also be utilized for the purpose of evaluating the degree of alcoholization.

The present study is concerned with the correla-

* This paper was awarded the State Association Research Prize of one hundred and fifty dollars at the Fifty-Sixth Annual Session of the California Medical Association, April 25-28, 1927.

tion of the concentration of alcohol in the excretions with the data secured by careful clinical examination of the first one hundred persons suspected of alcoholism brought to the Los Angeles General Hospital during the latter half of the year 1926 for whom such information was available. The examination usually included the following:

1. Direct question as to quantity and variety of liquor imbibed and time since the last drink.
2. If odor of alcohol is perceptible when patient exhales deeply.
3. Size of the pupils.
4. If patient's face appears flushed.
5. If patient staggers or reels when he tries to walk unassisted across hallway.
6. If patient can stand with feet together and eyes closed without swaying. (Romberg test.)
7. If patient can touch tip of nose with outstretched forefinger with eyes closed. (Coordination test.)
8. If patient can speak clearly, without slurring or mixing up syllables. (Test phrase "Methodist Episcopal" was often used.)
9. If any aberration of conduct or behavior were noted, especially garrulousness, boisterousness or pugnacity.
10. If there was any complicating injury or disease present.
11. Any other information which might be of value.
12. A specimen of urine was obtained on admission and placed in a sealed test tube on ice until examined for alcoholic content. A sample of expired air was taken in a football, and immediately tested for alcoholic content.

The methods used for the determination of alcohol in this study were devised and adapted particularly for this purpose, and numerous checks and control tests performed to insure accuracy and reliability. For determining the concentration of alcohol in the breath the patient was asked to blow up a football having a capacity of about 2000 cc. This air, while still warm, was then bubbled at a

moderate rate through 5 cc. of a hot solution of 0.33 per cent (N/15) potassium dichromate in 50 per cent concentrated sulphuric acid. The color change, from reddish yellow to greenish blue, was then measured by comparison with a series of standards previously made up by the addition of known amounts of alcohol (1, 2, 3, 4, and 5 milligrams) to 5 cc. of the reagent and sealed.

For determining the concentration of alcohol in the urine, blood or spinal fluid, 1 cc. of the unknown solution (or 1/2 cc. in some cases) was placed in a test tube and a purified current of air was bubbled through this tube and then passed through 5 cc. of the potassium dichromate sulphuric acid mixture as used above for ten minutes, both tubes being immersed in a boiling-water bath. In these tests, in addition to noting the color change by comparison with known standards, as above, the amount of reduction due to the alcohol was determined more accurately by titrating with a solution of N/30 ferrous ammonium sulphate in 5 per cent sulphuric acid, using three drops of a 1 per cent solution of potassium ferricyanide as an indicator, until the deep blue color was obtained. Each 2 cc. of the ferrous ammonium sulphate solution less than 10 cc. required for this titration represented 1 milligram of alcohol in the unknown solution when 1 cc. of the urine, blood or spinal fluid, etc., was used. When acetone was present in the unknown solution, it was removed by the addition of 1 cc. of Scott Wilson's reagent before aeration.

The results of these examinations are presented in Table I. Nearly one-half of the one hundred patients in this series were kept in the hospital for treatment. In twenty-nine instances this was done because the patient was so deeply intoxicated as to be unable to stand up, and so had to be cared for until he was able to leave. In most of the other seventeen, complicating conditions such as fractures, severe wounds or lacerations, or poisoning were present. The proverbial drunkard's luck did not appear to be much in evidence, since nearly half of the patients here examined, and a greater percentage

TABLE I
CLINICAL FINDINGS IN ONE HUNDRED PATIENTS SUSPECTED OF ALCOHOLISM
Classified According to the Alcoholic Content of the Urine

| Mg. alcohol per cc. urine..... | 0-1 | 1-2 | 2-3 | 3-4 | 4-5 | 5- | Total |
|---------------------------------|-----|-----|-----|-----|-----|----|-------|
| Patients examined..... | 7 | 11 | 26 | 37 | 13 | 6 | 100 |
| Kept in hospital..... | 3 | 3 | 10 | 16 | 8 | 6 | 46 |
| Diagnosed acute alcoholism..... | 0 | 6 | 16 | 29 | 13 | 6 | 70 |
| "Has been drinking"..... | 1 | 0 | 3 | 8 | 0 | 0 | 12 |
| Insufficient evidence..... | 6 | 5 | 7 | 0 | 0 | 0 | 18 |
| Complications present..... | 5 | 4 | 10 | 19 | 8 | 1 | 47 |
| Age: Under 30 years..... | 2 | 9 | 6 | 6 | 1 | 1 | 25 |
| 30 to 40 years..... | 2 | 1 | 9 | 11 | 3 | 1 | 27 |
| Over 40 years..... | 0 | 1 | 4 | 8 | 5 | 2 | 20 |
| Admit drinking..... | 3 | 5 | 9 | 17 | 6 | 3 | 43 |
| Odor of alcohol..... | 3 | 9 | 21 | 37 | 13 | 6 | 88 |
| Flushed face..... | 0 | 3 | 15 | 16 | 4 | 2 | 30 |
| Dilated pupils..... | 0 | 2 | 8 | 16 | 3 | 1 | 30 |
| Unable to walk straight..... | 0 | 4 | 12 | 26 | 13 | 6 | 61 |
| Unable to stand at all..... | 0 | 0 | 5 | 10 | 8 | 6 | 29 |
| Sway on standing (Romberg)..... | 1 | 2 | 14 | 25 | 5 | 0 | 47 |
| Incoordination (marked)..... | 0 | 1 | 7 | 18 | 9 | 4 | 39 |
| Behavior disturbances..... | 0 | 2 | 12 | 24 | 8 | 0 | 46 |
| Speech slurred..... | 1 | 1 | 4 | 5 | 4 | 0 | 15 |
| Speech confused..... | 0 | 6 | 10 | 8 | 7 | 0 | 31 |
| Speech, unable to talk..... | 0 | 2 | 5 | 3 | 2 | 6 | 18 |
| Comatose..... | 0 | 0 | 3 | 7 | 5 | 6 | 21 |

TABLE II
INCIDENCE OF SYMPTOMS AT DIFFERENT CONCENTRATIONS OF ALCOHOL
Expressed as Percentage Present in Each Group

| | 0-1 | 1-2 | 2-3 | 3-4 | 4-5 | 5- | Total |
|--|-----|-----|-----|-----|-----|-----|-------|
| Mg. alcohol per cc. urine..... | 7 | 11 | 26 | 37 | 13 | 6 | 100 |
| Actual number of patients..... | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| Expressed as percentage..... | 43 | 28 | 40 | 43 | 64 | 100 | 46 |
| Per cent kept in hospital..... | 0 | 54 | 62 | 80 | 100 | 100 | 70 |
| Per cent diagnosed acute alcoholism..... | 43 | 55 | 33 | 46 | 48 | 50 | 43 |
| Per cent admit drinking..... | 43 | 82 | 81 | 100 | 100 | 100 | 88 |
| Per cent odor of alcohol..... | 0 | 27 | 20 | 43 | 32 | 33 | 30 |
| Per cent flushed face..... | 0 | 18 | 30 | 43 | 24 | 16 | 30 |
| Per cent dilated pupils..... | 0 | 36 | 27 | 43 | 40 | 0 | 42 |
| Per cent staggering gait..... | 0 | 0 | 20 | 27 | 60 | 100 | 29 |
| Per cent cannot stand..... | 0 | 0 | 52 | 72 | 100 | 100 | 47 |
| Per cent positive Romberg sign..... | 14 | 18 | 27 | 52 | 82 | 66 | 39 |
| Per cent incoordination..... | 0 | 9 | 27 | 52 | 82 | 66 | 46 |
| Per cent behavior disturbances..... | 0 | 18 | 46 | 15 | 16 | 0 | 15 |
| Per cent speech slurred..... | 14 | 9 | 15 | 13 | 30 | 0 | 31 |
| Per cent confused..... | 0 | 54 | 38 | 21 | 53 | 0 | 18 |
| Per cent unable to talk..... | 0 | 18 | 19 | 8 | 15 | 100 | 21 |
| Per cent comatose..... | 0 | 0 | 11 | 20 | 40 | 100 | |

of those found to be actually intoxicated, were suffering from some such complicating condition.

The relationship of the concentration of alcohol in the urine to the degree of intoxication of the subject is strikingly brought out in this table. None of the patients with less than 1 milligram of alcohol per cc. of urine were found to be intoxicated, a little more than half of those having from 1 to 2 milligrams per cc. were so diagnosed, nearly three-fourths of those having from 2 to 4 milligrams and every individual having 4 milligrams or more per cc. of urine were so pronounced. These diagnoses were naturally very conservatively made, since the receiving physician was called to court to sustain his impression in many cases, and unmistakable clinical evidence was insisted upon for this purpose.

Even more striking is the relationship between the concentration of alcohol in the urine and the different symptoms usually considered indicative of acute alcoholism. The odor of alcohol was present in less than half of those showing under 1 milligram of alcohol per cc. urine, in more than three-fourths of those showing from 1 to 3 milligrams, and in every instance where the urine contained

3 milligrams or more of alcohol per cc. On the other hand, the dilated pupils and flushed face, so frequently called on as evidence, were found in less than one-third of these cases, and were particularly noted in the moderate groups, being replaced by constricted pupils and pallor in a high proportion of those coming in in coma, or stuporous.

The inability to stand straight without swaying is generally accepted as a characteristic symptom of acute alcoholism. More than three-fourths of the patients in this series showed this sign, of whom twenty-nine, as noted above, were unable to stand at all. The swaying was noted in less than 20 per cent of those showing under 2 milligrams of alcohol in the urine, but in more than 80 per cent of the others who were able to stand at all. In no case with 3 milligrams or more was the subject able to stand without swaying. Marked incoordination of the hands was recorded in thirty-nine cases, and was most frequently found in those who had more than 3 milligrams per cc. Behavior disturbances, on the other hand, including garrulousness, volubility, euphoria, boisterousness or pugnacity was more pronounced in those showing from 2 to 4 milligrams,

TABLE III
INCIDENCE OF SYMPTOMS AT DIFFERENT CONCENTRATIONS OF ALCOHOL
Expressed as Percentage Present of Those Showing That Symptom

| | 0-1 | 1-2 | 2-3 | 3-4 | 4-5 | 5- | Total |
|--|-----|-----|-----|-----|-----|----|-------|
| Mg. alcohol per cc. urine..... | 7 | 11 | 26 | 37 | 13 | 6 | 100 |
| Per cent actual number of patients..... | 7 | 7 | 22 | 34 | 17 | 13 | 100 |
| Per cent kept in hospital..... | 0 | 8 | 23 | 43 | 18 | 8 | 100 |
| Per cent diagnosed acute alcoholism..... | 33 | 28 | 39 | 0 | 0 | 0 | 100 |
| Per cent insufficient evidence..... | 8 | 36 | 24 | 24 | 4 | 4 | 100 |
| Per cent under 30 years of age..... | 7 | 4 | 33 | 41 | 11 | 4 | 100 |
| Per cent 30 to 40 years of age..... | 0 | 5 | 20 | 40 | 25 | 10 | 100 |
| Per cent over 40 years of age..... | 7 | 12 | 21 | 39 | 14 | 7 | 100 |
| Per cent admit drinking..... | 3 | 10 | 23 | 42 | 15 | 7 | 100 |
| Per cent odor of alcohol..... | 0 | 10 | 17 | 52 | 13 | 8 | 100 |
| Per cent flushed face..... | 0 | 8 | 27 | 52 | 10 | 3 | 100 |
| Per cent dilated pupils..... | 0 | 0 | 17 | 35 | 28 | 20 | 100 |
| Per cent unable to stand up..... | 0 | 12 | 22 | 50 | 16 | 0 | 100 |
| Per cent staggering gait..... | 2 | 4 | 30 | 53 | 11 | 0 | 100 |
| Per cent positive Romberg sign..... | 0 | 2 | 16 | 48 | 28 | 8 | 100 |
| Per cent incoordination..... | 0 | 4 | 26 | 53 | 17 | 0 | 100 |
| Per cent behavior disturbances..... | 1 | 14 | 31 | 25 | 20 | 9 | 100 |
| Per cent speech disturbance..... | 0 | 0 | 14 | 33 | 24 | 29 | 100 |
| Per cent comatose..... | | | | | | | |

TABLE IV
CONCENTRATION OF ALCOHOL IN THE BREATH AS AN INDEX TO INTOXICATION

| | | | | | | |
|---------------------------------------|-----|-----|-----|-----|----|-------|
| Mg. alcohol per 2 liters breath..... | 0-1 | 1-2 | 2-3 | 3-4 | 4- | Total |
| Diagnosed alcoholic intoxication..... | 2 | 12 | 12 | 7 | 2 | 35 |
| Insufficient evidence..... | 9 | 3 | 3 | 0 | 0 | 15 |
| Total..... | 11 | 15 | 15 | 7 | 2 | 50 |

as above that they tended to lapse into sluggishness, stupor or coma.

Speech disturbances varied from a slight slurring or thickening of speech, or a sluggishness or spacing of syllables to confusion, verbigeration, and eventually inability to enunciate at all. Two out of every three patients examined showed some defect in ability to speak, but this, of course, varied considerably according to the ability and previous experience of the individual, being more marked in some patients with lower concentrations of alcohol than in others who had a much higher figure.

It is interesting to note that the age distribution in the different groups varied with the concentration of alcohol in the urine, being lowest in those with low concentrations and highest in those who had the highest concentrations. This is believed, from personal acquaintance with the material at hand, to be related to differences in social and individual factors, such as the prevalence of solitary drinking among the aged, etc., rather than to increased tolerance or higher metabolic activity among the younger men. Of course in this series the subjects were mainly men, but a few women were included. A number of negroes were also included, although most of the patients were white.

The relative proportions of the different groups showing each symptom is presented in Table II, and the proportion of those showing that symptom in each group is shown in Table III.

The question of tolerance to alcohol is, of course, of paramount importance in a study of this kind. That some individuals are able to drink many times the amount of alcohol as others is a matter of common information. There are, of course, three possible explanations for this phenomenon. Delayed absorption of the alcohol is probably an important factor, as Hanzlik showed in animal experiments, and this is suggested in the curves for alcohol concentration in the blood of certain of our patients, where the peak for habitues came later than that for those with lower tolerance. That the rate of oxidation of alcohol may be increased in persons habituated to the drug is very plausible, and is suggested by some of the figures presented by Higgins

and Miles, on the combustion of alcohol as shown in the respiratory quotient, although Mellanby reported that the amount of alcohol utilized in the body does not vary greatly in different individuals. The third possibility, that the tissues may become resistant to higher concentrations of alcohol, would preclude the acceptance of the concentration of alcohol as an index to the degree of intoxication. Experimental evidence on this point is not yet conclusive, but the uniformity of the results presented in Tables I, II, III, IV, and VI are convincing, for this series at least, that this cannot be taken as occurring to any great extent. In other words, it appears that the development of tolerance to alcohol consists in greatly retarded absorption, and perhaps in increased rate of oxidation of the alcohol, but that the tissues are always affected to about the same degree by the same concentration of alcohol in the body, independent of the habituation of the individual.

The concentration of alcohol in the urine cannot be taken as an absolute indication of the alcoholic concentration in the patient's tissues because of lack of information as to the time period during which that urine had been secreted, as it would, on the whole, represent the summation of all of the different concentration existing during the period of secretion, although the work of Nicloux indicates that there may be some resorption of alcohol from the bladder if the concentration in the urine becomes much higher than that in the blood. Southgate and Carter met this objection by having the patient void on admission and again fifteen minutes later, and taking the latter sample as representing the condition of the patient at this time. We have had some difficulty in obtaining specimens of urine, as catheterization is not always justified in such cases, and there is often insufficient time for further procedures, and so have looked for some simpler method of making this determination.

The concentration of alcohol in the breath, as shown in Tables IV and Table V, offers a very attractive-looking substitute. As soon as the disturbing factor of the alcoholic liquor still in the mouth and lips is removed, the concentration of

TABLE V
CONCENTRATION OF ALCOHOL IN THE BREATH COMPARED WITH THAT IN THE URINE

| | | | | | | |
|---------------------------------------|-----|-----|-----|-----|----|-------|
| Mg. alcohol per 2 liters, breath..... | 0-1 | 1-2 | 2-3 | 3-4 | 4- | Total |
| Mg. alcohol per 1 cc., urine 0-1..... | 1 | 1 | 4 | 0 | 0 | 6 |
| 1-2..... | 1 | 2 | 4 | 4 | 0 | 11 |
| 2-3..... | 0 | 1 | 4 | 3 | 0 | 8 |
| 3-4..... | 0 | 0 | 4 | 3 | 0 | 7 |
| 4-..... | 0 | 0 | 1 | 1 | 1 | 3 |
| Total..... | 2 | 4 | 17 | 11 | 1 | 35 |

TABLE VI
CONCENTRATION OF ALCOHOL IN THE SPINAL FLUID COMPARED WITH THAT IN THE URINE

| | 0-1 | 1-2 | 2-3 | 3-4 | 4-5 | 5- | Total |
|---------------------------------------|-----|-----|-----|-----|-----|----|-------|
| Mg. alcohol per cc. spinal fluid..... | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mg. alcohol per cc. urine 0-1..... | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1-2..... | 0 | 0 | 1 | 1 | 0 | 0 | 2 |
| 2-3..... | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 3-4..... | 0 | 0 | 0 | 0 | 3 | 1 | 4 |
| 4-5..... | 0 | 0 | 0 | 0 | 1 | 3 | 4 |
| 5-..... | 0 | 0 | 0 | 0 | 1 | 3 | 4 |
| Total..... | 0 | 0 | 1 | 1 | 4 | 4 | 10 |

alcohol in the breath approaches a fairly constant relationship to that in the blood, since it passes through the lungs very easily. As may be seen in Table IV, less than 20 per cent of patients having less than 1 milligram of alcohol in the sample of breath taken were found to be intoxicated, as compared to 80 per cent of those having from 1 to 3 milligrams and 100 per cent of those having 3 milligrams or more. Table V shows how the breath alcoholic concentration keeps pace with that in the urine, although, as may be expected from the considerations given above, it could not be expected to give a perfect check.

The concentration of alcohol in the spinal fluid was determined in ten instances. In eight cases where the urinary alcoholic concentration was more than 4 milligrams per cc., the spinal fluid also contained more than 4 milligrams per cc. as shown in Table VI. In the other two cases, where the urinary alcoholic concentration was between 2 and 3 milligrams, the spinal fluid contained 2 milligrams per cc. in one case and 3 milligrams per cc. in the other. The concentration of alcohol in the blood was also determined in fifteen instances, but it was found that in the blood the alcohol was destroyed on standing so rapidly that the determinations gave much too low figures except in those cases where this determination could be done within a very short time after the blood was taken, as shown in Table VII.

In view of the difficulty in making the diagnosis of acute alcoholic intoxication from the clinical evidence alone, as may be confirmed from a review of the data in the cases above presented, and in view of the constancy of the findings as to the concentration of alcohol in the urine and in the breath with reference to the degree of alcoholic intoxication, it is concluded that the examination of patients to determine the state of intoxication should in every case include some quantitative determination of the amount of alcohol present in the urine, breath, or body fluids. It is not expected that such test should

supersede and entirely replace all of the other clinical evidence presented, but, as any laboratory test, it must be interpreted in the light of the findings in the individual case. A study of the results in the series of cases just analyzed, however, as well as those reported by many other observers, notably Nicloux, Widmark, Schweisheimer, Miles, Mellanby, Southgate and Carter, and many others, leads us to rely upon the alcoholic concentration in the urine, breath or tissues as the most important single factor in arriving at a correct conclusion as to the degree of intoxication of a patient.

REFERENCES

Abderhalden, E.: Bibliographie der gesamten wissenschaftlichen Literatur ueber den Alkohol. Berlin, 1904.
Abel, J. J.: A Critical Review of the Pharmacological Action of Ethyl Alcohol in Physiological Aspects of the Liquor Problem. Boston, 1902, II, 1.
Anstie, F. E.: On the Prognosis and Treatment of Certain Acute Diseases, Lancet, 1867, II, 189 and 385.
Anstie, F. E.: Final Experiments on the Elimination of Alcohol From the Body, Practitioner, London, XIII, 15.
Atwater and Benedict: An Experimental Inquiry Regarding the Nutritive Value of Alcohol, Mem. Nat. Acad. Sci., 1902.
Benedict and Dodge: . . . the Psychological Action of Ethyl Alcohol, Boston, 1913.
Benedict and Norris: Journal of the Am. Chem. Society, 1898, XX, 293.
Billings, J. S.: Physiological Aspects of the Liquor Problem, 1913.
Bodlander: Die Ausscheidung aufgenommenen Weingerstes aus dem Korper, Pflugers Archives, XXXII, 398, 1883.
Biehler: Blutkonzentration Ausscheidung des Alkohols im Hochgebirge, Arch. f. Exp. Path. und Pharm., 1925, CVII, 20.
Carpenter, T.: Physiological Effects of Ethyl Alcohol When Injected into the Rectum, Am. J. of Physiol., 1917, XLII, 605.
Carpenter and Babcock: Absorption of Alcohol and Its Concentration in the Urine When Injected by Rectum, J. Biol. Chem., 1917, XXIX, p. 27.
Carpenter and Babcock: The Concentration of Alcohol in

TABLE VII
CONCENTRATION OF ALCOHOL IN THE BLOOD COMPARED WITH THAT IN THE URINE

| | 0-1 | 1-2 | 2-3 | 3-4 | 4-5 | 5- | Total |
|------------------------------------|-----|-----|-----|-----|-----|----|-------|
| Mg. alcohol per cc. blood..... | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Mg. alcohol per cc. urine 0-1..... | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1-2..... | 0 | 1 | 0 | 1 | 0 | 0 | 4 |
| 2-3..... | 0 | 2 | 0 | 0 | 1 | 0 | 3 |
| 3-4..... | 1 | 1 | 2 | 0 | 0 | 1 | 5 |
| 4-5..... | 1 | 0 | 0 | 0 | 1 | 0 | 2 |
| 5-..... | 1 | 0 | 0 | 0 | 1 | 0 | 2 |
| Total..... | 5 | 4 | 2 | 1 | 2 | 1 | 15 |

- the Tissues of Hens After Inhalation, *Am. J. of Physiol.*, 1919, XLIX, 128.
- Cotte: *Rep. Pharm. Bd.*, IX, 438.
- Gettler, A. O., and Tiber: *Archives of Pathology*, I, 1927.
- Cannan and Sulzer: *Heart*, XI, 1924, p. 148.
- Dox and Lamb: *Determination of Alcohol*, *J. Am. Chem. Soc.*, 1916, XXXVIII, 2561.
- Dupre: *On the Elimination of Alcohol*, *Practitioner*, 1872, VIII, p. 149.
- Forbes, John: *The Physiological Effects of Alcoholic Drinks*, 1848.
- Fisk, E. L.: *Alcohol and Human Efficiency*, *Atlantic Monthly*, 119, p. 43.
- Fisk, E. L.: *Alcohol*, New York, 1917.
- Grehant: *Compt. Rend. Soc. de Biol.*, 1899, LI, pp. 808 and 946; 1900, LII, p. 894; 1903, LV, pp. 225, 376, 802; 1903, LV, p. 1264.
- Gyllensward: *Skandinavisches Archiv. f. Physiologie*, 1918, p. 327.
- Hamill: *J. Physiol.*, XXXIX, 1910, p. 476.
- Horsley and Storge: *Alcohol and the Human Body*.
- Hanzlik: *J. Biol. Chem.*, 1912, XI, 61.
- Hanzlik and Collins: *J. Pharm. and Exp. Therapeutics*, 1913, V, 185.
- Higgins, Harold L.: *Determination of Acetone in the Breath*, *Johns Hopkins Hosp. Bull.*, XXXI, No. 358, December, 1920; *Alcohol*, in *Barker's Endocrinology and Metabolism; Rapidity With Which Alcohol and Some Sugars may Serve as Nutriment*, *Am. J. Physiol.*, XLI, No. 2, August, 1916; *Effect of Alcohol on the Respiration and the Gaseous Metabolism of Man*, *J. Pharm. and Exp. Therap.*, 1917, IX, p. 441. Higgins, Harold L., Peabody and Fitz: *A Study of Acidosis in Three Normal Subjects, With Incidental Observations on the Action of Alcohol*, *J. Med. Research*, 1916, 34, p. 263.
- Kionka u. Hirsch: *Untersuchungen ueber Alkohol I*, *Arch. f. Exp. Path. und Pharm.*, CIII, p. 282, 1924.
- Kuhn: *Untersuchungen ueber Alkohol II*, *Arch. f. Exp. Path. und Pharm.*, CIII, p. 295, 1924.
- Kraepelin, E.: *Ueber die Beeinflussung einfacher psychischer Vorgange durch einige Arzneimittel*, Jena, 1893.
- Mellanby: *Alcohol, Its Absorption into and Disappearance From the Blood Under Different Conditions*, *British Medical Research Committee Special Report*, Series No. 31, 1919, 1.
- Mellanby, E.: *British J. of Inebriety*, 1920, XVII, 157.
- Miles, W.: *Alcohol in Human Blood and Urine*, *J. of Pharm. and Exp. Therap.*, 1922, XX, 265; *Alcohol and Human Efficiency*, *Carnegie Institute*, Washington, Pub. No. 333, 1924; *Effect of Alcohol on Psychophysiological Function*, *Carnegie Institute*, Wash., Pub. No. 206, 1918.
- Mendel and Hilditch: *The Influence of Alcohol upon Nitrogenous Metabolism in Man and Animals*, *Am. J. Physiol.*, 1910, XXVII, p. 1.
- Mullikan: *Identification of Pure Organic Compounds*, Vol. 1, p. 168.
- Nicloux, Maurice: *Compt. rend. Soc. de Biol.*, 1899, LI, 980, 982; *ibid.* 1896, XLVIII, p. 841, 1126; *ibid.* 1900, LII, 295, 297, 980, 983, 622; *ibid.* 1903, LV, 282, 284, 391, 744, 1014, 1229; *ibid.* 1906, LX, 1034; *ibid.* 1913, LXXIV, 267; *ibid.* 1912, LXXLII, 59, 63; *Zeitschrift f. Physiol. Chem.*, 1905, XLIII, 476. Nicloux, Maurice, and Nowicka: *J. de Physiol. et de Pathol. Generale*, 1913, XV, 297.
- Pringsheim: *Biochem. Zeitschr.*, 1908, XII, 143.
- Remund, M. H.: *Der Alkoholnachweis in der forensischen Praxis*, *Schweizerische Med. Wochenschrift*, No. 37, p. 909, September 18, 1926.
- Schwartz, Fritz: *The Determination of Ethyl Alcohol*, *Schweiz. Med. Wochenschrift*, No. 38, p. 923.
- Schweisheimer: *Der Alkoholgehalt des Blutes unter verschiedenen Bedingungen*, *Arch. f. Klin. Med.*, 1913, CIX, 271.
- Starling, E. H.: *The Action of Alcohol on Man*, London, 1923.
- Simmonds, Charles: *Alcohol*, ——— 1919, p. 160.
- Smith, J. Hall: *Experiments on the Chromic Acid Test*

for Alcohol, *Brit. and F. Med. Chirur. Rev.*, 1861, XXVIII, 232.

Southgate: *Biochem. Journal*, XIX, p. 737, 1925; *ibid.* XVIII, p. 101, 1924.

Southgate and Carter: *British Med. Journal*, 1:463, March 13, 1926.

Sulzer and Cannan: *Alcohol in Blood, Heart*, II, p. 141, 1924.

Tigerstedt, Carl: *Effects of Alcohol in Weak Solutions*, *Pflügers Archives f. d. g. Physiologie*, CCV, 170, 1924.

Stewart, James Purves: *Acute Drunkenness*, *Soc. for Study of Inebriety*, January 13, 1925.

Widmark: *Biochem. Jour.*, 1920, XIV, 364.

ASSOCIATED FEES—MEDICAL AND SURGICAL*

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THE chairman of the General Surgery Section of this society is honored in the privilege of addressing you in formally opening the session. Inclination impels toward some subject of scientific interest, but the technical side of the program will be ably cared for by the gentlemen to follow. For this reason your presiding officer has chosen to use the time allotted him in discussing a matter of interest to every surgeon and one even more interesting to his confrères on the medical side. It is not a pleasant subject, this matter of fees. We like to think of ourselves as scientists devoting our lives to the betterment of the physical condition of our fellow-man. We believe ourselves to be all of this, but we should not fail to recognize the fact that economic factors will not be divorced from our profession until the remark of a famous Californian that "a man must eat" becomes untrue.

Let us then frankly consider the distasteful but nevertheless important financial side of our calling. And let it be understood at the outset that the purpose of this discussion is in the interest of honesty and fair dealing, to secure simple justice and full understanding between each of the concerned parties, namely, the patient, the referring physician, and the surgeon, while respecting strictly the dictum of our Code of Ethics as related to the division of fees.

The subject chosen, you will bear in mind, is "Associated Fees—Medical and Surgical." This limitation is made since it brings us directly to the discussion of a very real and as yet not satisfactorily solved problem in the practice of medicine and surgery. Until we find an answer the obnoxious subject of "fee-splitting" will be before us, and its general discussion can bring nothing but discredit to the profession. This subject was first introduced and the opprobrious name applied in an honest attempt to eradicate an unethical practice on the part of a comparatively few surgeons. Unfortunately the effect of the discussion has been to cast suspicion upon surgeons generally—upon a body of men whose unselfish devotion to duty and ethical standards are

* Chairman's address, Section on General Surgery, at the Fifty-Sixth Annual Session, California Medical Association, April 25-28, 1927.

such as to entitle them to commendation rather than to condemnation.

In an attempt to clarify the matter the following analysis of the conditions relating to fees is made.

Theoretically there should be no problem as to fees even in those cases where the internist and the surgeon have both a vital relation. Theoretically each has performed a service of value and each can present his bill and receive his pay directly from the patient. Practically this method does not function satisfactorily. This statement is made from an intimate knowledge of the experiences of many reputable men in our profession plus a personal observation over a number of years in general practice and of a greater number of years in work limited to surgery.

Why does not this simple, open and seemingly fair solution give satisfaction to all of those concerned, the patient, the referring physician, and the surgeon? The assumption is that all three are honest, for no rule can keep a crooked man straight, and this paper is addressed only to those who are seeking a fair solution of this problem. The answer to the above question is that it does not give satisfaction because the practical effect of the theoretical solution results generally in injustice to the referring physician. Any plan that is not just to all concerned is untenable.

Why does this theoretically ideal plan result in injustice to the referring physician? For two main reasons. The first is that, while the layman has been educated to understand and appreciate the value of a surgical service, he has not been taught to estimate the value of a medical service even though it may be equally vital as a factor in preserving health or life. The second is that surgery to the lay mind is dramatic and, therefore, an adequate surgical fee will be promptly and cheerfully paid, while in the same case a moderate fee for medical services will be questioned or repudiated.

To illustrate the practical results of this unfortunate and unjust condition, assume a typical example. A patient is ill and calls the family physician; several visits are made. Technical work and diagnostic acumen worthy of every consideration are brought into play. A correct diagnosis is made and an operation is found to be necessary. Then comes the exercise of much tact in convincing the patient and the family of the necessity for surgery. And do not underestimate the value of the possession of this ability, for without it the sufferer will be as unfortunately situated as though a wrong diagnosis had been made. The patient is taken to the hospital the surgeon concurs in the diagnosis and operates. Health is restored or a life is saved. Now, who will say that the surgeon has performed a service of greater value to the patient than has the physician, or that his technical skill is more worthy of reward than the competent generalship of his brother, the internist?

According to our ideal theoretical plan of managing fees each presents his bill. Without discussion you will probably visualize the surgeon's bill many times the amount of that which the physician would dare to present. Is this just? Your answer is: It

is not. Yet these are the conditions under which we are working.

It was stated that to the lay mind surgery is dramatic. For this reason the probabilities are that the surgeon's bill for services will be promptly paid. This you say is a fortunate thing for him, but what has it to do with injustice to the physician. Again assume a typical example. The patient is ill and calls the family physician who successfully performs all of the valuable functions above described. The surgeon likewise does his part in restoring health. Under our ideal theoretical plan bills are again presented, but this patient differs from the former in that his finances are limited. He has enough to pay his hospital fees and his nurses, with two or three hundred dollars over for the physician and the surgeon.

The physician's work antedates that of the surgeon. We have admitted its relative importance. Unfortunately the patient does not see the values clearly. The obligation of the physician is accumulated gradually, so much so, that with it the patient acquires an immunity to a sense of his financial responsibility. The work of the surgeon is prompt, impressive, and, in the mind of the invalid, the vital factor in his cure. The services of the physician are given in the patient's home by a man who often has no thought of immediate compensation. The services of the surgeon are rendered in the hospital by a man who has learned the wisdom of having some definite understanding in advance about the fee. Is there any question as to who will receive his compensation? If there is need for deferred payments, is there a question as to who will do the waiting? Again, is this just to the physician?

The above examples are not exaggerated. They are typical of the experiences of everyone of us. If this be true we must conclude that the plan suggested to us for the collection of fees is ideal only theoretically. It cannot, without further education of the public, be made to function practically.

At this point lest there be a question of our loyalty to the Code of Ethics in its relation to the division of fee, let me hasten to add that the principles set down are not only theoretically ideal but that they are practically and justly workable, providing the surgeon is fair enough to cooperate with the physician, and providing the right methods are used in their application.

Fees are probably secretly divided much more commonly than we like to admit. Sometimes the practice is the result of unquestionable dishonesty, the purpose being to buy the support of the referring physician and by an addition to the statement for services rendered to have the patient pay the purchase price. This paper is not concerned with such individuals. They are few. They cannot be controlled by ethics. More often the practice is the result of an honest desire on the part of a conscientious surgeon to see that his medical confrère has fair remuneration. He argues that it costs the patient no more, since he makes no added surgical charge, and he knows, for the reasons given above, that the physician will not be justly treated if he attempts to collect in the way that he theoretically

could and should (and practically cannot) by the presentation of his own bill.

But be the motive honest or dishonest the practice of secret division of fees is not defensible. It lays the unselfish and honest surgeon liable to suspicion. It forms a precedent which the unscrupulous surgeon will use for his own dishonest practices and affords him just the opportunity which he desires to deceive and fleece the patient. It leads the layman further astray in his already wrong conception of the relative value of medical and surgical services. He feels that he has paid the medical man justly, since he has paid the bill as presented. He does not know that the surgeon has contributed to make the compensation just.

This brings us to a point where we can make a plain statement of the purpose of this address. It is proposed that in all cases where an internist and a surgeon have cooperated that their fees should be associated, that is, that one statement should be rendered, the bill being so itemized as to show definitely the obligation to each man. By this method the physician would make charges commensurate with his services, these to include a just estimate of the value of his diagnosis and advice. Since the bill would be a joint one, the surgeon would assume an equal responsibility for those items which might seem to the patient, in his misconception of relative fee values, to be overcharges, and, since he would be assuming this responsibility, it would be incumbent on him to explain why the physician's charges were just and why they were quite as worthy of consideration as any work which he had done.

And this explanation is simple and to the patient educational. He should be made to understand that the so-called operative fee is in fact a fee which compensates for diagnosis, judgment, and for the operation. The surgeon in the case of an unREFERRED patient will fix a fee which in total compensates himself for all of these items of service. If one or two of these items of service have been performed by another, simple justice demands that the one who rendered the service should receive the reward. Nor should the patient be made this charge as an addition. It should be deducted from the statement of the surgeon, his bill having been rendered based on the assumption that he had performed all of the factors of the total service and being the same in amount as though the patient had come unREFERRED.

By this method the laity would soon become educated to a true conception of the relative values for medical and surgical attention. This plan would eliminate the present unjust situation which results in the surgeon alone receiving his fee where funds are insufficient for both. It would mean that both the physician and the surgeon would accept a proportionate discount on the value of their services where any reduction in bills was necessary. It would eliminate the excuse for secret money transactions and would acquaint the patient with every financial fact relative to his professional care. It would satisfy the honest physician, for it would secure for him as surely as for the surgeon the pay that he had justly earned. It should satisfy the honest surgeon—though it might pique the selfish one—for such a man would surely desire no unfair

advantage over his brother on the medical side. The plan should function to the great satisfaction of both internist and surgeon in that it would enable them to uphold the spirit and the letter of our Code of Ethics with the full consciousness that each was being strictly just to the other while both were equally fair to the patient.

PROGRESS IN PEDIATRICS*

By ANDREW J. THORNTON, M. D.

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IF there is one branch of scientific medicine that is advancing more rapidly than another, I think that distinction may be claimed for pediatrics. Probably that feeling is shared by a large number of physicians in our specialty. We have a general sense that this is true, but when one begins to compile actual facts and figures to prove the statement the results are astonishing. Progress in any line of scientific endeavor is necessarily slow. We press forward day after day and year after year doing our job as best we can. We gather bits of newer thought as we go along the way and weave them into the fabric of everyday practice. It may be likened to the man climbing up the mountain slope. The ascent is gradual and he feels sure that he is gaining heights, but not until he stops to look back does he realize just how far he has actually progressed.

Just for a few minutes we shall view the last few turns in the road over which we have passed and note the changes. Let us start at the beginning.

Studies in nutrition have proved beyond question that prenatal influences must be reckoned with if the best results in child culture are to be realized. Some of the obstetricians are taking cognizance of these facts, and they are to be congratulated. Closer relations between the obstetrician and the pediatricist are gradually being developed, and the next generation will benefit greatly because of this cooperation. The responsibility imposed upon the doctor who practices obstetrics—great as it ever was—is today even heavier because of recent discoveries in the field of nutrition. Formerly the accoucheur was concerned only with the more severe forms of toxemia of pregnancy and the safe conduct of labor, but today he must know that errors in diet during pregnancy may be responsible for deficiencies in the child that no amount of after care and feeding by the pediatricist can correct. Much can be done for deficiencies that occur after birth, but for those errors in the mother's diet that affect the teeth and other structures of the child in utero no correction can be made. Any physician who cares for pregnant women should study assiduously the newer books on nutrition and apply the knowledge gained to the careful regulation of habits and food of their patients. Do it for the sake of the child, as the full significance of diet in the developing embryo is just becoming appreciated.

THE NEW-BORN

In the many problems of the new-born the obstetrician is again involved, and his cooperation is asked. Many of the progressive men are asking the assist-

* Chairman's address, Pediatric Section, at the Fifty-Sixth Annual Session of the California Medical Association, April 25-28, 1927.

ance of the pediatricist, realizing that it is here that the baby doctor's job begins and his responsibility ends. All over the country the younger men in pediatrics are taking advantage of every opportunity to see and study new-born babies, and the obstetricians are making this possible. Now that we are having better obstetrics let us have better care of the new-born. Let us learn to recognize promptly and how best to treat such conditions as hemorrhagic disease, hemorrhage into the ventricles of the brain, prematurity and many other exigencies of the first few days of life. When the general practitioner knows how to deal with these conditions we shall see in our offices fewer of those hopeless and distressing cases that every doctor dreads even to think about.

FEEDING AND NUTRITION

Thanks to Marriott, McCollum, Gerstenberger, and others the mystery has been taken out of the child's food. It no longer concerns us greatly if there is no available breast milk supply for a new-born infant. In fact we no longer admit that mothers' milk is necessarily superior to all other foods in all cases or that it is always the ideal food for babies. We realize, of course, that there is something to breast feeding *per se* besides the mere physical benefits to the baby. Many doctors believe that nursing at the breast stimulates a relationship between mother and child that strikes deep into the lives of both. Consequently a child that is deprived of this birthright may miss something essential to his future welfare.

But the problems of artificial feeding have been largely overcome. We know with reasonable certainty that we can feed successfully any baby that has been left without a supply of breast milk, not excepting even the premature. Likewise the age-old mysteries of nutrition are as an open book to us now. Scurvy, rickets, and other nutritional diseases have been reproduced in the laboratory on animals. The diets that produced them and the diets that cured them are well known to us all. Recent experiments have revealed the presence of a vitamin that influences reproduction. What the future holds in secrets of nutrition we can but guess, though we feel sure that much is still in store for us.

INFECTIONS

Along with the problems of feeding and nutrition we have learned the importance of the ever present acute upper respiratory infections. The common cold is not to be looked upon lightly. Mothers are being taught that the discharging nose of the run-about child is not a necessary part of child life. Infections are the greatest stumbling block to infant feeding. If the general practitioner who feeds most of the babies would remember this point and blame the stomach and bowel upsets on infections and not on the foods he would be more successful. The great improvement in the methods of handling milk plus the increased knowledge of child hygiene among mothers has eliminated many of the gastrointes-

tinal diseases that were so frequent and fatal a decade ago.

THE FOUR HORSEMEN

Whooping cough, measles, diphtheria, and scarlet fever—named in order of their importance—no longer present an unbroken phalanx against the defenseless child. Great gaps have been made in their line, and two of their death-dealing warriors have been laid low.

Since the advent of toxin-antitoxin the medical profession has been convinced that a world free from diphtheria is just as possible as a world free from typhoid fever. It should no longer be necessary to put forth arguments in defense of the preventive treatment of diphtheria. Every mother who reads knows of it, and only those poor deluded souls who follow after vagaries in religion and medicine are denying their children this priceless boon.

Scarlet fever antitoxin has come, and while not as near perfect as diphtheria antitoxin, yet it is proving to be of great benefit in the more severe types of the disease. In most cases after administration the temperature drops abruptly and the dangerous toxemia is relieved. This enables the patient to cope more successfully with the secondary infections. Complications are less frequent, the course of the disease is shortened and recovery more certain. Serum sickness in a considerable percentage of cases is troublesome, and in a few sensitive patients the reaction is alarming. Those patients who give a history of asthma or eczema or those who have been given previous injections of horse serum should be handled with extreme caution and the possible danger of anaphylaxis explained to the family.

Scarlet fever prophylaxis is as yet not out of the experimental stage. Many physicians are using it, but certainly it has not been given an unqualified endorsement by the leading workers in this field of experimentation. Those who feel justified in using it should make it plain to the parents that prolonged and absolute immunity cannot be promised. There can be no doubt that in the very near future the prevention of scarlet fever will be as simple and certain as the prevention of diphtheria is today.

Measles and whooping cough are still unprovided with immunizing treatments. Convalescent serum confers a temporary immunity and is of benefit in treatment of measles just as it is in many other acute infections, but nothing definite has been developed in the way of a practical prophylactic treatment comparable to those of diphtheria and scarlet fever. There seems to be a dispute between the American and the European workers on experimental measles as to the nature of the causative organism. Tunnicliff and Hoyne are working with a diplococcus, while others hold to the belief that a virus is the cause. Doubtless the cause and prevention will both be worked out soon.

Whooping cough, on the other hand, while not wholly preventable is amenable to a variety of effective treatments. The early diagnosis of whooping cough by means of the white blood count has caused us to renew our faith in the use of vaccine. A distinct leukocytosis with a high percentage of lympho-

cytes in the presence of a cough, however mild, will warrant a strong suspicion of pertussis. In the presence of an epidemic the use of whooping cough vaccine as a preventive measure is justifiable and unquestionably it confers a period of immunity. Just how long this period is we cannot say. Other measures that have proven of value in treatment are ether in the muscle or mixed with oil and injected into the rectum, and x-ray exposures of the chest during the whooping stage.

In addition to those already mentioned there is a long list of diseases of children that are holding the attention of the scientific investigator, a full discussion of which is not the purpose of this paper.

Two or three may be discussed briefly.

Among the more recent studies of interest in epilepsy are those of Peterman, Cuneo, and Robertson. These workers have demonstrated that a tendency toward alkalosis will precipitate convulsions, and an artificially produced acidosis will control the attacks. Starvation therefore is a most effective treatment of epilepsy, because among other changes in the metabolism starvation produces an acidosis.

TREATMENT OF PURPURA HEMORRHAGICA BY THE USE OF THE MERCURY VAPOR QUARTZ LIGHT

Sooy and Moise have found that the blood platelets increased from 108,000 per cm. to 546,000 per cm. in twelve days. Treatment by transfusion in these cases is not of lasting benefit, and splenectomy in the acute cases is attended by a very high mortality. If these results are confirmed by others we may feel that at last we have something of benefit for this hitherto baffling condition.

I shall mention but one other condition and that is, sinus disease in children. More than three years ago Marriott and Claussen were able to prove to their own satisfaction that sinus infection in children is a rather frequent condition. The nose and throat specialist, on the other hand, has been very slow to take the definite stand on this question that we would wish for. The existence of empyema of the maxillary antrum is thoroughly established in the minds of most physicians, but such is not the case with infections of the sphenoid and ethmoid sinus in young children. In my own experience I have found that the average nose and throat surgeon will often postpone drainage of the mastoid antrum in infants long after what to me seems a clear indication.

The pediatricist who observes his patients carefully is better able to decide when operative measures are indicated than the surgeon who is called in and sees the child but once or twice. This I believe to be true not only of sinus disease, but also of many other conditions.

We as guardians of the health of children entrusted to our care are shirking our duty and belittling our specialty when we allow others to make important decisions that we should make for ourselves.

SOME REMARKS ON THE ART AND SCIENCE OF UROLOGY*

By H. A. ROSENKRANZ, M. D.
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THIS paper, intended to be for the good of urology and the art and science of medicine as a whole, is addressed not only to the urological members, but to all physicians of the regular school of medicine, that school which, founded upon a thorough course of education seeks to diagnose and heal the sick by every known method that possesses any value whatsoever, and to the governing boards of our state and county medical societies.

Inasmuch as there has been so much confusion wrought in the public mind during the past few years on account of the ever increasing crops of pulse diagnosticians, herbalists, spinalists, psychospiritists, electronists, occultists, electric belt revivalists, etc., it behooves the regular school of medicine to serve the public to the extent of setting forth some fundamental facts. It is only by publicity that we can give the laity the information that they are seeking and that they are entitled to. If we do not explain the fundamentals of disease and health and our relation thereto to the public, the public will be served as it has been in the past by false and sectarian propaganda, thoroughly and aggressively organized on a business and paying basis with the result that the art and science of regular medicine will recede into a weakly defensive position overshadowed and encroached upon by cultists.

Advertising—The arguments that I have most frequently heard against advertising are:

1. "I have all the patients that I can take care of, haven't you? Why try to get more?" It is this attitude of self-sufficient indifference that is partly to blame for our cult-ridden condition. Without building up a large practice, how can a physician acquire that amount of experience and resources necessary for the organization and maintenance of an institution where research may be carried out, medical science advanced, and the public most efficiently and economically served?

Argument No. 2. "Doctors can't guarantee their services hence shouldn't advertise." Those of you who have tried to extract a guarantee from an automobile dealer or repair man will readily classify the form of mind that advances this gesture.

Argument No. 3. "The quacks indulge in publicity, so we shouldn't do it." Would you interdict the sale of the Bible because someone else is circulating dime novels?

Argument No. 4. "It isn't nice to advertise—isn't done." Perhaps the moving-picture industry sensed this very bad taste when it discontinued its "advertising department" and substituted a "publicity department." The name was changed and everybody was happy. A constructive truth needs no apology. Life and health are important subjects. We physicians have assumed a responsibility in treating the sick who come to us, and we also owe to the public such information as will make most available and effective the methods of preserving health.

* Chairman's address, Urology Section, at the Fifty-Sixth Annual Session of the California Medical Association, April 25-28, 1927.

and life. Our shrinking modesty has resulted too often in the patient being forced to obtain his information on these subjects from irregulars whose blatant, subtle and destructive propaganda is always available. The cultists have long been awake to the effectiveness of organized publicity. Physicians know that a *very large percentage* of patients who are treated by sectarian healers believe that they are being treated by members of the regular medical profession. The prefix of "Doctor" or "Physician and Surgeon" leads most patients to believe that the healer is a member of the regular school. That most constructive bill that was vetoed by the predecessor of our present governor, a bill that made it obligatory for every practitioner of a healing art, science, cult or sect to display upon his office door the name of the school of healing that he represented so that patients might not be misled, was intended to serve the public. It was fair to all. Of course the cultists who were masquerading as regular doctors objected and the governor, perhaps believing that their political power was greater than that of the regular school, vetoed the bill. Until a few months ago our classified telephone directory made no distinction between regular and irregular practitioners, and a surprisingly large number of patients have told me that they have been misled thereby. I venture to say that out of one thousand people who have some kind of an idea of what an osteopath or a chiropractor is, not one knows what the name orthopedist represents, or even knows that regular medicine has a specialty that treats diseases of the bones, joints, and nerves.

Ours is an old and glorious heritage, ever seeking the new in science and invention to apply to the healing of mankind. Are we not discriminating against the laity as well as against ourselves when we permit the public to give us the same classification and rating as the irregulars who have decreed that one minute of their education is equal to one hour of ours and whose object in taking up their cult, it is only reasonable to presume, is to obtain a *quick* license to heal everybody; a license made legal partly because of our lack of organized and aggressive publicity. The public should once and for all know that regular medicine never has objected and never will object to the recognition of any practitioner who has given adequate time to the study of anatomy, physiology and disease. The method of treatment will take care of itself provided the student understands the aforementioned fundamentals. Those cultists with whom healing is a business stress *treatment*, knowing that the unthinking majority delight in having something new, bizarre and mysterious done for them, or rather to them.

An ancient philosopher once said that there were three roads, an extreme right, an extreme left, and a middle course, the latter being the one of choice. Cannot we inaugurate a middle road of dignified publicity, thereby maintaining a higher degree of order within our own ranks and clearing up the confusion that exists in the minds of the laity? Inasmuch as the lack of readily available information has tended to direct a large proportion of the sick into irregular camps, I would suggest that each county medical society serve the public by maintain-

ing a publicity bureau as outlined below, and that the existence of such a service be given widespread publicity—*paid advertising*—in the press. Information concerning physicians might be tabulated as follows:

1. Name, address, and telephone numbers.
2. Specialty, if any.
3. Premedical education.
4. Graduate of ——— Medical School. Date ———.

The foregoing information should be handed out or mailed for the asking, absolutely without comment. A similar list of the members of each specialty should likewise be available. Telephone or any other form of incomplete or uncontrollable information should be disallowed.

Advancements in Urological Practice—Inasmuch as most urological patients who require surgery are well past middle life (one-third of all men past the age of 50 develop a tumor of the prostate) urologists have had to extend themselves to develop a technique that would insure success in those cases that in years gone by were looked upon as comparatively poor risks. In the olden days when the general surgeon was doing the bulk of prostatic surgery the mortality ranged around 85 per cent and higher. The urologist has gradually and painstakingly developed a system of preoperative, operative and postoperative technique whereby this mortality has been reduced to between 1 and 3 per cent. In order to achieve this remarkably low figure the urologist has had to keep abreast not merely of all that is good in urology, but has had to safeguard his patients against such complications as pneumonia, heart weakness, etc. Every phase of the patient's health and disease must be diagnosed, considered and acted upon. The urologist who refuses to operate during an acute or recent (even though mild) bronchitis, who gives his patient a prophylactic course of respiratory vaccine, who assures himself on the morning of operation that the patient has not developed a bronchitis during the night, who doesn't do a prostatectomy upon a patient unless that patient is feeling fit and who employs preparatory digitalization to safeguard his patient's heart, and who insofar as is possible judges the cardiac reserve as well as the kidney function and blood chemistry, and who doesn't wear out his patient's heart by flooding him with fluids after operation—this urologist may look forward with optimism to a complete cure of his patient from the distressing symptoms of prostatism, and, other things being equal, he will have the lowest mortality rate.

Vaccines—Controlled data on the use of vaccines in strictly urological conditions is rare and, with the exception of gonorrheal arthritis, iritis, etc., the results have not been exceptionally noteworthy, and even in the aforementioned conditions the vaccines must take a subordinate position to other procedures, such as injections of the vasa. I do, however, use vaccines a great deal. Their use is based on one of the soundest principles of medicine. They can do no harm, and probably do more good in urological conditions than we realize. My experience during the past two years has converted me from a skeptic to a strong advocate of respiratory vaccines,

not only from the standpoint of cure, but of prophylaxis against pneumonia, bronchitis, and rhinitis. Dr. Alexander Lambert[†] in checking his thoroughly controlled pneumonia cases over a period of four years sets forth the remarkable result of 42 per cent mortality in groups of cases in which vaccines had not been used as compared with a mortality of 5.8 per cent in those cases that had received respiratory vaccine promptly. These figures show a saving of 86 per cent in the number of lives which might have been lost if vaccines had not been used.

Heart—In our enthusiasm about kidney function and blood chemistry I feel that we have perhaps not given due consideration to the myocardium. I believe that, other things being equal, the surgical risk varies directly as the tone of the heart muscle and inversely as the amount of damage that has been done to the heart cells by either an acute infection such as carbuncle, or by any chronic infection such as pus kidney, rectal fistula, syphilis. In prostatectomy cases a low kidney function may not be dangerous provided the heart reserve, the bronchial condition and blood chemistry are adequate. I have operated upon a patient who during a two weeks' preoperative course had a combined pthalein output varying from 12 to 15 per cent two hours and fifteen minutes after intravenous injection. He recovered as uneventfully as any patient that I have had. On the other hand, I operated upon a patient for renal calculus plus a small pyonephrosis, a man with an equally good blood chemistry and a pthalein output of 38 per cent, whose convalescence was not so happy because his ureter being blocked by a stone, the pus germs and toxins had been drained into the blood stream to poison and weaken his heart muscle. *Every case* in which there has been drainage of infection into the blood stream should remind us that we may be dealing with an impaired cardiac reserve.

Two-Stage Operation—I would advocate the two-stage operation for prostatectomies not only in those cases in which I have recommended it in previous papers, and in those complicated with a low renal function, but also in those cases in which there is a suspicion of weakened heart muscle. I also favor a two-stage operation in such operations as nephrectomy complicated with a large perinephritic abscess or pyonephrosis. At the first operation we drain the pus and give the heart as well as the other body cells an opportunity to regain their tone.

Anesthesia—I am leaning more strongly to spinal anesthesia every year in bladder and prostatic cases. In my experience it has contributed much to the safety and freedom from complications of these operations. Medicine of the Southland owes a debt of gratitude to Dr. Granville MacGowan, who, among many other important advances, introduced and popularized spinal anesthesia in the Southwest.

Hemorrhage—In my paper read before this section last year I detailed what had proven to be an effective routine in the prevention of hemorrhage. I have made some additions to the list which I believe are of decided value. This routine which has

made most cases of prostatectomy an almost bloodless operation is as follows:

1. For four days preceding operation one cup jello b. i. d.
2. For three days preceding operation calcium lactate gr. XX t. i. d.
3. On evening preceding operation:
 - (a) Fibrogen, two ampoules each in a different place subcutaneously over abdomen.
 - (b) One ampoule calcium lactate intravenously.
4. One and one-half hours before going to surgery:
 - (a) Thyroid extract, gr. 2 to 3 per mouth.
 - (b) Fibrogen, one ampoule subcutaneously.
 - (c) Calcium lactate, one to two ampoules intravenously.
5. Three-quarters of an hour before going to surgery, 2 cc. of oral fibrogen orally.
6. Just before going to surgery, pituitrin one ampoule.

Free Hospital Service—Inasmuch as county hospitals and other charitable hospitals pay their orderlies, cooks, nurses, interns, and residents a salary, the attending staff, which bears a large degree of the responsibility and heavy work, should receive a remuneration. There is an ever growing tendency, especially in eastern hospitals, to recognize the services of the attending staff in this manner. I believe that those governing boards that do not already pay their attending staffs would cheerfully grant their staffs this consideration if the matter were presented to them. The attending staffs have contributed much of their valuable time gratis; they have been so busy serving the public that they have not had time to consider their position in this matter.

Nursing—The regular salaried hospital nurse or orderly is of greater assistance to the urologist in caring for his patients than is the private nurse who is not especially trained in urology, and hardly any private nurses are so trained. There is a growing demand for clean-cut urologically trained male nurses. It would seem that arrangements might be made whereby the nursing curriculum would provide for specialization in this line of work. The patients themselves complain of the lack of urological training of most nurses.

Physiotherapy—A great deal of urological treatment consists of physiotherapy as exemplified by cystoscopy, passage of dilators and catheters, stone crushing, massage, quartz lamp and various arrangements for the production of heat and the various modalities of the galvanic, faradic and sinusoidal currents. Last Friday an old patient reappeared with a chronic prostatitis and requested that I use the hollow quartz ultra-violet ray applicator upon him, because it had given him marked relief once before. I had forgotten that I had used it upon him. My experience with the various modalities of electricity and with the quartz lamp leads me to the conclusion that we have only scratched the possibilities of these physiotherapeutic agents. Physiotherapy has in the past been accused of laying too much stress upon treatment and not enough upon fundamental knowledge of disease. Happily now, however, this stigma no longer ob-

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tains. That stigma has been assumed in a large measure by the dispensers of our old friend the electric belt, a *fifty-dollar* instrument that will produce a blister or a sweat and relieve pain by counter-irritation, all laudable effects when indicated and all readily obtainable for the price of *fifty cents* for a hot bath, a Spanish fly plaster or a bottle of Sloan's liniment. We need an active section on physiotherapy in our state and county medical societies to maintain and direct our enthusiasm in this very important adjunct to therapy.

Closing—These very necessary and enjoyable state meetings are tense, crowded, diverting, and complicated affairs. They are properly dedicated largely to pure scientific progress. Would it not be fitting and proper for our section to have one interim meeting yearly, arranged over a week-end in some quiet central rendezvous like the Hotel Samarkand where we might with greater leisure inaugurate such measures of action and progress as will give added impetus to the advancement of urology?

SPONTANEOUS RUPTURE OF A HYDRONEPHROTIC SAC SECONDARY TO URETERAL STONE *

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AND

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DISCUSSION by J. C. Negley, Los Angeles; L. P. Player, San Francisco; H. A. Rosenkranz, Los Angeles.

ALTHOUGH traumatic rupture of the kidney is not uncommon, spontaneous rupture of that organ is relatively infrequent. The latter usually occurs in kidneys presenting chronic nephritis, tuberculosis, abscess formation, tumor, or infarct. In reviewing the literature up to 1924, Reschke¹⁴ pointed out that there were only a few cases of ruptured hydronephrosis reported up to that time. Rupture of a hydronephrotic sac secondary to the back pressure caused by a calculus presenting urinary extravasation, but without hematuria is exceedingly rare. Henline⁶ reported one such case presenting a huge extravasation seen very late and diagnosed at autopsy. The rupture extended through the upper primary calyx and was secondary to the back pressure caused by a calculus in the right ureter.

PATHOLOGY

In 1856 Wunderlich²² described what he termed spontaneous apoplexy of the renal capsule. He called attention to the fact that perirenal hemorrhage occurred and could be the result of spontaneous rupture of the kidney. Hartmann⁵ and Tuffier¹⁷ reported ruptures due to malignant tumor formation. Doll³ and Szenes¹⁶ are of the opinion that chronic nephritis acts as a predisposing cause for spontaneous rupture of the kidney. Wade,¹⁹ Lippens,¹¹ Läwen,¹⁰ Connell,² Grasmann,⁴ and Thomas¹⁸ state that rupture can also occur in kidneys presenting tuberculosis, acute focal infection with abscess formation, hemophilia, infarct, hydronephrosis or polycystic kidney. All investigators are

agreed that spontaneous rupture does not occur in kidneys without antecedent pathology.

Küster^{8,9} collected ten cases of spontaneous rupture of the kidney in 30,000 autopsies and pointed out that the parenchyma of a distended kidney ruptures easily. Herzog⁷ observed sixteen cases in 7805 autopsies. That the parenchyma ruptures more easily than the pelvis is demonstrated by the greater number of the former cases reported. Back pressure into the kidney from incomplete drainage increases the intrapelvic pressure. An increase in the hydraulic pressure within through the blood vessels may then cause the organ to burst. At this time of increased pressure the slightest injury, such as a slight blow over the loin or indirect trauma, such as falling on the feet or buttocks, muscular action, etc., may throw the kidney against the transverse process of the vertebrae causing rupture of a previously pathologic kidney (Morris¹²). As the parenchyma is the weaker portion of the kidney, it usually gives way, causing a rent of the capsule. However, when the pelvic wall has been weakened by chronic inflammation it may rupture, as in the case herein reported. The rupture of the pelvis is seldom accompanied by perirenal hemorrhage because there are no end arteries to be severed. Therefore extravasation of urine without hemorrhage is characteristic of a ruptured pelvis or ureter. Azzurrini¹ emphasizes the prominence of hemorrhage in nontraumatic rupture of the parenchyma. Orr and Ewing¹³ report a remarkable case in an Arab woman, in which a stone ruptured through the kidney lodging in the loin causing a spontaneous wound from which pus, but no urine, exuded. Watson and Cunningham²¹ go so far as to state that rupture of the parenchyma, although frequently accompanied by perirenal hemorrhage, rarely causes extravasation of urine.

Although traumatic rupture of the kidney is fairly common spontaneous rupture of that organ is more or less infrequent. The latter usually occurs in kidneys presenting tumor, abscess formation, tuberculosis or chronic nephritis. In our case a rupture occurred in a hydronephrotic sac secondary to back pressure caused by a stone. As this condition is relatively rare, and as there are not many such cases reported in the literature, we herewith present this case.

Mr. A. B., age 32, purchasing agent. Referred by Dr. Edward Salomon. Admitted to the urological service of St. Mary's Hospital, March 26, 1924.

In November, 1923, the patient experienced a severe, sudden, sharp pain in the right lumbar region, nonradiating in character. This disappeared in two days without any treatment. It was not accompanied by nausea and vomiting, nor by any urinary symptoms. He did not notice the passage of any stone or gravel after the attack. He was well until March 19, 1924, when he developed an excruciating, continual, sharp pain in the right lumbar region radiating to the right groin. It was accompanied by nausea and vomiting, abdominal distention and cold perspiration of the body. There was also slight dysuria and nycturia 2. For some time prior to the attack he had noticed that the urine was somewhat cloudy, but it never had had the appearance of containing blood. He gave no history of direct trauma nor indirect injury. Temperature varied between 100 and 102.2 degrees F. and the pulse from 100 to 120.

Physical Examination—Head, heart, and lungs were negative. Blood pressure systolic 110, diastolic 68. In the

* Delivered before the Urological Section of the California Medical Association.

right upper abdominal quadrant a very tender, round mass was palpated corresponding to the lower half of the kidney. It moved with respiration. The muscles overlying this mass were somewhat rigid. There was tenderness on deep pressure in the right costovertebral angle. No particular tenderness was elicited in palpating the left renal fossa.

Laboratory—Hemoglobin, 70 per cent; erythrocytes, 4,360,000; leukocytes, 14,100; polymorphonuclear leukocytes, 81 per cent; large mononuclear lymphocytes, 6 per cent; and small mononuclear lymphocytes, 13 per cent. Catheterized specimen showed a slightly turbid, deep amber-colored urine containing a slight trace of albumen, sugar negative, specific gravity 1017, and an alkaline reaction. Microscopical examination revealed numerous amorphous phosphates and carbonates, leukocytes varying from 10 to 12 cells to the high dry field, erythrocytes in abundance and numerous gram positive staphylococci. Phenolsulphonephthalein test (intramuscular) 44 per cent recovered in two hours.

X-ray Examinations—The right kidney was enlarged. There was a round area of increased density about the size of a cherry stone seen below the right kidney in the line of the ureter. No evidence of stone in the left kidney, lower ureter, or bladder region.

Cystoscopy, March 23, 1924—There was considerable injection of the trigone. The right ureteral orifice was deeply injected and somewhat edematous. The ureteral spurt on this side was very much delayed and weakened. The left orifice and ureteral spurt were normal. The mucosa in the second and third bladder zone had a grayish-red appearance. In passing a No. 6 x-ray catheter up the right ureter a definite solid resistance was encountered 20 cm. from the ureteral orifice. No force was exercised and the catheter was left in place for study. A catheter was passed into the left renal pelvis with ease. The drainage of urine from the right kidney was very slow and contained numerous leukocytes, erythrocytes and gram positive cocci. 0.0006 grams of phenolsulphoneph-

thalein was injected intravenously, and appeared in eight minutes on the right and four minutes on the left side. In a half hour 5 per cent was recovered on the right and 30 per cent on the left side. Because of the weakness of the patient no pyelogram was made. On March 25, the temperature dropped to 100 degrees and the pulse to 90. The next day the patient developed a severe chill lasting one hour, following which the temperature rose to 106 degrees and the pulse to 142. The leukocytosis increased to 25,450 with a polymorphonuclear count of 93 per cent. a progressive jaundice developed. A definite immovable tumor mass appeared in the right upper quadrant 10 by 15 cm., which was exquisitely tender. The overlying musculature became more spastic and the costovertebral angle more tender. Because of the severity of the symptoms it was decided to intervene at once.

Operation—Pyelotomy with repair of pelvis by Mathé and Salomon. A curved linear lumbar incision was made on the right side. In incising the lumbar fascia one could see considerable distention of the retrorenal leaf of the perirenal fascia. The fascia was fluctuant and gave the appearance of containing fluid under pressure. On incision of Zuckerkandl's fascia 100 cc. of urine were liberated into the incision. The pelvis was then palpated and a stone about 1 cm. in diameter was located at the uretero-pelvic junction. A small aperture in the pelvis was located above the calculus from which urine exuded. This was enlarged by incision through which the calculus was removed. The aperture was then closed with interrupted No. 00 catgut sutures. A soft rubber tissue drain was placed against the pelvis and brought out through the upper end of the incision and the wound closed in the usual manner.

Diagnosis—Calculus in right kidney pelvis and ruptured hydronephrosis with urinary extravasation.

Postoperative Course—Immediately after returning from the operating room, the jaundice which was formerly well defined had diminished considerably and disappeared in forty-eight hours. The patient ran a fever varying from 100 to 103 degrees F. for eighteen days following the operation. The incision drained considerably during this period necessitating its widening for better drainage. Eleven days after the operation the patient developed a severe brachial neuritis, which persisted for thirty-four days and finally disappeared after one intravenous injection of 28 cc. of a 1 per cent solution of mercurochrome. The patient was finally discharged from the hospital on May 4, 1924, free from pain and from jaundice, the lumbar incision having closed with a slight hernia. He was seen eighteen months later in good health with no recurrence of stones or symptoms.

SIGNS AND SYMPTOMS

It is well to classify the symptoms into (1) general, (2) urological.

General—The patient is always acutely ill, and as the condition continues he rapidly passes into shock. At first the temperature is subnormal, due to shock. Later there are increases in the temperature and pulse, which rapidly rise and are sometimes preceded by a chill. Doll³ states that it rises rapidly, due to the absorption of fibrin ferment. Leukocytosis is always present. The temperature may be high and continual, or intermittent. There are signs of general cachexia, such as malaise, weakness, loss of appetite and weight.

Urological—There is a relative paucity of urinary findings in comparison to the severity of the illness. Increased frequency, dysuria, and hematuria are uncommon. The urine findings may be such as are found in any acute toxemia, a trace of albumen with occasional white blood cell, red blood cell, and cast. This may be explained because of the fact that the urine with which one is chiefly interested does not reach the bladder but is extravasating about the kidney. The extravasation causes pain and tenderness



Plate I—Schematic sagittal section of kidney prior to rupture. The wedge-shaped calculus at the uretero-pelvic junction has caused back pressure resulting in considerable dilatation of the pelvis.

in the involved lumbar region, radiating anteriorly to the upper abdomen and at times extending to the inguinal region. Renal colic may be present before the rupture, but rarely afterward. Painful and spontaneous sensibility of the upper abdomen to pressure is present, which augments as the urinary extravasation increases. There is pronounced distention of the abdominal walls which is due to reflex irritation of the splanchnic nerves. Immovable dulness and tumor formation develops in one flank. The tumefaction may present fluctuation and ballottement. Signs of peritoneal irritation such as meteorism, vomiting, nausea, singultus, and jaundice occur as the extravasated urine encroaches upon the peritoneum.

DIAGNOSIS

Because of the magnitude of the general signs and symptoms, the diagnosis of a ruptured hydronephrotic sac is difficult. A careful history of former attacks of renal colic or lumbar pain, followed by an acute onset of pain, tumor formation, shock, increase in temperature, signs of peritoneal irritation together with relatively negative urine findings, is of great importance in determining the diagnosis. One must not be misled by the accompanying general signs and symptoms. They may suggest other conditions such as acute cholecystitis, impacted gallstones, intestinal obstruction, ruptured gastric and duodenal ulcer, acute pancreatitis, perinephritic abscess or perirenal hematoma. A good plain roentgenogram of the kidney is essential, as it can show a shadow which demonstrates the existing calculus. Pyelography should not be employed, as the patient is always critically ill. However, it is well to pass a bismuth catheter so that the location of the suspected shadow can be determined. In the case herein reported the presence of a shadow in the right upper quadrant, although suggestive of an impacted gallstone, was diagnosed as a urinary calculus by the passage of a catheter.

TREATMENT

Immediate surgical intervention either radical or conservative, is the only hope of saving the patient's life. If the rupture extends through the parenchyma and capsule the accompanying hemorrhage must also be checked. Adequate drainage of the surrounding tissue extravasated by urine must also be instituted. If seen within a few hours after rupture and the kidney does not appear to be too badly destroyed by some concurrent pathological process, then one can simply remove the obstructing calculus, repair the ruptured pelvis or parenchyma, pack and drain widely. The entire kidney should be exposed, delivered into the incision and carefully inspected for additional rents, tears or rupture of the parenchyma or pelvis. This type of conservative treatment was favored by Connell,² Lippens, and others in the treatment of small ruptures of the kidney, be they spontaneous or traumatic. This was employed in our case, but was followed by a rather prolonged convalescence with complications consisting of persistent infection of the renal fossa requiring subsequent drainage, severe brachial neuritis, and finally by a hernia at the site of the incision. If the kidney is considerably destroyed or the hydronephrosis well advanced, nephrectomy is the treatment of choice,

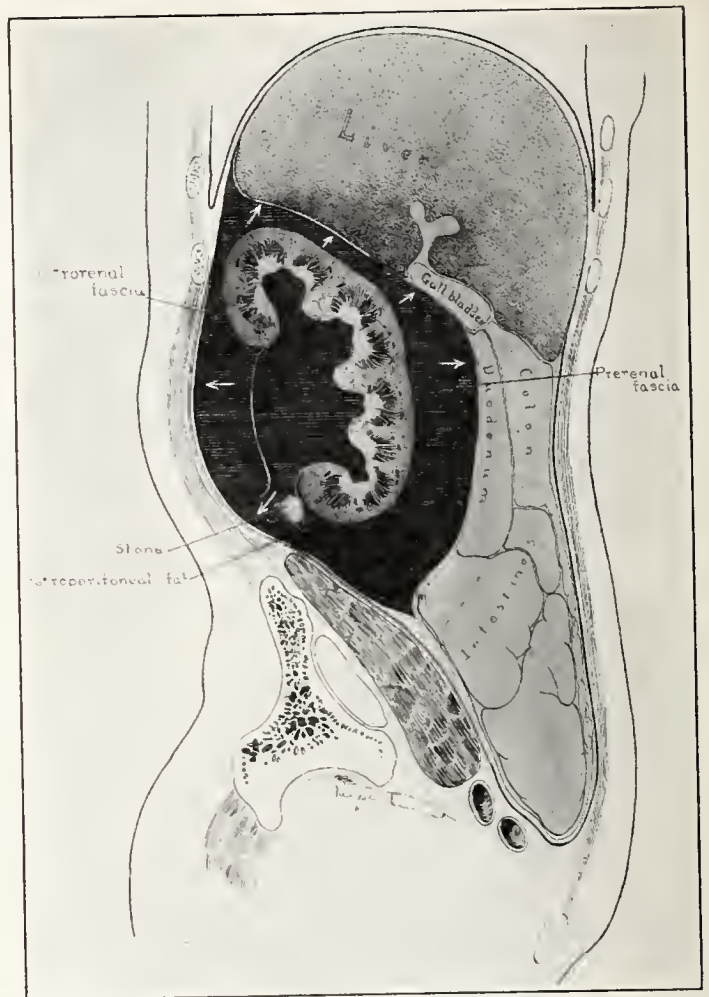


Plate II—Sagittal section of kidney following rupture of the pelvis. Note that the extravasated urine is contained within the pre- and retrorenal fascias causing considerable pressure and encroachment on the surrounding structures.

provided, however, that the opposite organ is normal. Speese¹⁵ emphasizes the fact that when one operates early the added factor of infection of the perineal space having not developed does not require attention. Nephrectomy has been successfully employed by Thomas,¹⁸ Lippens,¹¹ Speese,¹⁵ Watson,²⁰ and others in treating ruptured kidneys in general. It assures the removal of the infected focus and the elimination of the cause of the extravasation of urine and infection of the perirenal space. It is less likely to be followed by after effects such as suppuration giving rise to permanent fistula, kidney atrophy, parenchymatous or interstitial nephritis, and future stone formation. It is our belief that the convalescence of the case herein reported would have been shortened and unaccompanied by as many postoperative complications had nephrectomy been performed.

CONCLUSIONS

1. Back pressure into the kidney, due to insufficient drainage may be sufficient to destroy its major portion causing spontaneous rupture of the parenchyma or pelvis.
2. Spontaneous nontraumatic rupture of the kidney always occurs in those presenting some antecedent pathology such as tuberculosis, acute focal infection or abscess formation, hemophilia, infarct, hydronephrosis or polycystic kidney.
3. Rupture of the parenchyma is far more common than rupture of the pelvis.
4. Rupture of the parenchyma is more likely to be accompanied by perirenal hemorrhage, whereas

that of the pelvis or ureter is usually followed by extravasation of urine without hemorrhage.

5. Immediate surgical intervention is the only successful treatment. If seen early, removal of the obstructing calculus, conservative repair, packing and drainage will suffice.

6. In advanced cases nephrectomy is the treatment of choice. It is less likely to be followed by complications.

REFERENCES

1. Azzurrini, F.: Contributo allo studio delle Emorragie Perirenali Criptogenetiche, *Lo Sperimentale*, 1912, lxvi, 479.
2. Connell, F.: Simple Subparietal Rupture of the Kidney, *Surg., Gynec., and Obst.*, 1916, xxii, 663.
3. Doll, H.: Die Apoplexie des Nierenlagers, *München. Med. Wchnschr.*, 1907, liv, 2417.
4. Grasmann, K.: Zur Ätiologie spontaner Massenblutungen ins Nierenlager, *Deutsch. Ztschr. f. Chir.*, 1923, clxxviii, 416.
5. Hartmann, M.: *Bull. et. Mém. d. l. Soc. d. Chir.*, 1906, xxxii, 695.
6. Henline, R.: Spontaneous Rupture of the Kidney, *J. Am. M. Ass.*, 1924, lxxxiii, 1411.
7. Herzog, H.: Über Nierenverletzungen, *München. Med. Wchnschr.*, 1890, xxxvii, 198.
8. Küster, E.: Zur Entstehung der subcutanen Nierenzerreissungen und der Wanderniere, *Arch. für klin. Chir.*, 1895, i, 676, 686.
9. Küster, E.: Die chirurgischen Krankheiten der Nieren, Stuttgart, Enke, 1896-1902, cxiii, 721 p. Lfg., 526, *Deutsch. Chirur.*
10. Läwen, L.: Über das sogenannte perirenale Hema-tom und andere spontane retroperitoneale Massenblutungen, *Deutsch. Ztschr. f. Chir.*, 1912, cxiii, 367.
11. Lippens, A.: L' Hématome Périrénal Spontané, *Jour. de Chir.*, 1913, xi, 1.
12. Morris, J.: *Surgical Diseases of the Kidneys and Ureters*, 1901.
13. Orr-Ewing: Extrusion of a Renal Calculus Causing Sinus in Loin, *Lancet*, 1921, cci, 230.
14. Reschke, K.: Über Hydronephrosenruptur, *Deutsch. Ztschr. f. Chir.*, 1924, clxxxv, 137.
15. Speese, J.: Perirenal Hematoma, *Surg., Gyn., and Obs.*, 1913, xvi, 571.
16. Szenes, A.: Spontanruptur der Niere mit Massenblutung ins Nierenlager, *Ztsch. f. Urol.*, 1923, xvii, 276.

17. Tuffier, M.: Hématome sous-péritonéal diffus par rupture spontanée d'un Sarcome du rein droit, *Bull. et Mém. d. l. Soc. d. Chir.*, 1906, xxxii, 692.

18. Thomas, G.: Spontaneous Rupture of the Left Kidney, *Lancet*, 1917, xxxvii, 84.

19. Wade, H.: Spontaneous Rupture of the Kidney with Secondary Perirenal Hemorrhage in Acute Toxic Nephritis, *J. M. Res.*, 1915, xxxii, 419.

20. Watson, F.: Subparietal Injuries of the Kidney, *Boston Med. and Surg. Jour.*, 1903, cxxxiii, 29, 64.

21. Watson and Cunningham: *Diseases of the Kidneys*, 1908, ii, 119-20.

22. Wunderlich, K.: *Lehrbuch der Pathologie und Therapie*, 1856, iii, 426.

DISCUSSION

J. C. NEGLEY, M.D. (809-816 Haas Building, Los Angeles)—Doctor Mathé has reported, in a masterful way, one of the rare conditions encountered in urology. Two important diagnostic points have been omitted. First, nothing was said about the character of the drip or amount of urine collected from the catheter in the right ureter. If the drip was steady and continuous for the entire period of collection, then one would assume that they were dealing with a hydronephrosis, but one in which there was not an entire blocking of the ureter. Since there was not an entire blocking of the ureter, it makes it questionable as to whether enough pressure could develop behind the calculus as to cause spontaneous rupture of the pelvic wall and would lead one to think that perhaps there had been some slight or moderate trauma to this region that had been forgotten by the patient. The second omission was intended in that no pyelogram was attempted and, of course, no one but the surgeon in charge of the case could determine as to the advisability of that procedure. However, I believe that since urine dripped by this calculus for a period of half an hour and if the amount of urine had been measured, an equal amount of any chosen pyelographic media could have been injected with safety and should have aided in the preoperative diagnosis, for in all probability the pyelographic media would have leaked through this opening in the pelvis and made a diagnosis possible by x-ray.

However, it is always easy to map out a plan of procedure after the findings (including operation and post-mortem, if any) are all in but much more difficult on a patient so acutely ill as was this one. Doctor Mathé is to be congratulated on the splendid results he obtained in this case.

L. P. PLAYER, M.D. (384 Post Street, San Francisco)—Doctor Mathé's contribution pictures very beautifully the



Figure I—Plain roentgenogram taken prior to rupture, demonstrating enlargement of right kidney and calculus below it in the line of the ureter

difficulties encountered in making a differential diagnosis between actually acute surgical kidneys and similar conditions in contiguous intraperitoneal organs which give practically the same symptoms and signs. The value of plain and stereoscopic preliminary x-rays is justly emphasized.

His surgical procedure in the reported case is to be commended, as too many kidneys are sacrificed unnecessarily. A stormy recovery and a slight hernia at the point of incision are negligible when one considers preservation of an important organ.

I have had one case, due to very slight trauma, which parallels quite closely the case reported by the essayist in which the patient crawled through a window and ruptured a hydronephrotic kidney, caused by an impacted ureteral stone, by simply rolling over the window ledge.

H. A. ROSENKRANZ, M.D. (Story Building, Los Angeles)—I cannot recall a case of spontaneous rupture of the kidney, but this very interesting and instructive report and resumé of Mathé and Oviedo has impressed me with the following points:

1. The necessity of making a prompt quantitative as well as qualitative diagnosis of renal rupture so that an immediate operation may repair the damage, thereby obviating the occurrence of complications that might make necessary a sacrifice of the kidney later on.

2. The advisability of expectant treatment in those cases in which the trauma has probably been slight and the symptomatology not severe.

At the Los Angeles General Hospital there have come under my observation during the past eleven years about three cases per year of traumatic rupture of the kidney. All of these including those that presented definite tumor-faction in the loin and also those that had repeated hemorrhages during the weeks of convalescence recovered without operation under treatment selected from the following list of therapeutic measures: (1) rest in bed; (2) morphin; (3) ice bag to loin; (4) calcium lactate by mouth and intravenously; (5) fibrogen subcutaneously; (6) fibrogen orally; (7) feeding of jello; (8) thyroid extract and pituitrin.

With the exception of numbers 1 and 3, I employ all of the aforementioned measures rather routinely prior to operation as prophylaxis against bleeding. The results have been uniformly good. I know of no measures except the bladder pack which have been introduced in recent years that have lessened the occurrence of hemorrhage, or stopped the already present hemorrhage so effectively as the foregoing ones in prostatectomy cases.

In connection with rupture of the kidney the necessity of a safe technique in pyelography should be emphasized. About a year ago there was referred to me for nephrectomy a case upon whom pyelography had been performed. The operation disclosed a very large kidney studded with hematomata varying from one-eighth to one-half inch in diameter. The sclerosed pelvis mentioned by Mathé and Oviedo are also inclined to split and crack under the stress of a comparatively low degree of hydrostatic pressure just as does the strictured male urethra.

Along with conditions causing hematuria should be mentioned the not infrequent cases of renal arteriosclerosis in the aged that develop a spontaneous rupture of an intrarenal vessel. These cases are negative to cystoscopic diagnoses and are often free from hematuria for years at a time. They have made up a percentage of so-called essential hematurias and are diagnosed by negative urinary and cystoscopic findings plus the presence of marked arteriosclerosis elsewhere.

It might be well here to correct an impression that still persists among many practitioners that a patient should not be cystoscoped while he is having an active hematuria. Many a diagnosis has become confused by adherence to this erroneous belief. Cystoscopy should be performed as soon as possible in almost all cases.

I would emphasize the importance of x-raying all cases of renal trauma. The presence of calculi in a ruptured kidney may cause the complication of perinephritic abscess and should call for immediate operation. I was called in on one such case, almost moribund. The trauma had occurred several weeks previously. There were multiple calculi and a perinephritic abscess that extended up around the aorta and vena cava.

The authors' statement that rupture of the pelvis is seldom accompanied by perirenal hemorrhage is borne

out by a case that I saw Prof. Felix Legueu do a nephrectomy upon some thirteen years ago at the Hospital Necker. The patient had been run over by a wagon about two and one-half weeks previously. A $\frac{7}{8}$ -inch longitudinal tear was found in the pelvis, the kidney being surrounded by about a pint of foul urine, but no blood.

I like the authors' technique of suturing the opening in the pelvis. For years I have been routinely suturing incisions in the pelvis or ureter with No. 1 or No. 0 plain catgut, running suture, and it is rarely that any urine appears in the incision after operation.

In the case of Mathé and Oviedo I believe that the rupture was facilitated by erosion and pressure atrophy of the pelvis, due to direct action of the calculus as well as by the intrapelvic urinary pressure. I have removed a number of calculi from renal pelvises in which the pelvis consisted merely of thin bluish translucent membranes caused by the two aforementioned conditions.

Mention by the authors of the postoperative hernia is interesting. I have seen three cases of hernia in this region. One was in the location of Petit's triangle in a young man who had noticed it for several years. It was spontaneous, he not having been operated on. Another was in a woman who had already had two operations in the right renal region resulting in an atrophic muscular wall extending several inches around the scar. I performed a nephrectomy after which there was a large hernia. A general surgeon later on removed the patient's gall bladder and repaired this hernia at the same time. The site of the hernia operation became infected and the result was poor. The third case was in a missionary who had a tuberculous kidney removed in China about four years ago, the incision being closed without drainage. In due course an abscess formed, ruptured, and a six-inch hernia resulted. This patient was a fairly vigorous middle-aged man. C. P. Thomas and I performed what seemed to be a very thorough plicating operation, somewhat similar to the one for umbilical hernia. The result obtained was perfect for about eight months, after which time I noticed a recurrence of the bulging in the loin. I am convinced, however, that this was merely a universal giving way of the atonic thinned muscular walls and a splitting open of the hernia incision. These last two cases are a strong argument for a prompt operation in lumbar hernia so that the repair may be made before muscular atrophy has progressed too far.

I feel that the authors are to be congratulated upon the sound recommendations that they have deduced from the study of their case which is a distinct contribution to this important subject.

AUTHORS (closing)—We wish to express our appreciation for the general discussion of our paper emphasizing the importance of rupture to the kidney, be it spontaneous or traumatic. Back pressure alone into the kidney may be sufficient to cause spontaneous rupture of a kidney, provided, however, that there have been antecedent pathological changes such as nephritis, focal infection, infarct formation, etc. It also increases the intrapelvic pressure to such an extent that a slight blow, indirect trauma, or jar may press this impaired organ against the transverse processes of the vertebrae easily causing rupture of the kidney. This was demonstrated by Player's patient, who ruptured a hydronephrotic kidney by the slight pressure that the act of crawling over a window ledge exerted on this weakened organ in which the hydrostatic pressure within was already increased. We have quoted numerous similar cases from the literature. This fact is of great importance in industrial surgery in determining the compensability of the case presenting a kidney rupture which is due to rather slight trauma. The parenchyma tears more easily than the pelvis and is the most frequent site of rupture. It is usually accompanied by intra- or perirenal hemorrhage. Rupture of the pelvis is less common, rarely followed by perirenal hemorrhage, but frequently accompanied by extravasation of urine. This is emphasized by Rosenkranz's observation of Legueu's case in which a tear of the pelvis seven-eighths of an inch long resulted in perirenal extravasation of urine, but in no hemorrhage.

Negley does well to emphasize two very important diagnostic signs—the character of the drip and the measurement of the amount of urine collected by the ureteral

catheter. In our service at St. Mary's Hospital it is our procedure to observe these signs on every case and carefully record them on a cystoscopic chart. Negley apparently overlooked the observation noted in our description of the cystoscopy performed upon our case in which we stated that the urine from the right kidney drained very slowly. The slow drainage and small amount of urine collected were unquestionably due to the fact that the calculus was causing almost complete obstruction at the ureteropelvic junction, as clearly indicated in Plate 1. We feel that pyelography was contraindicated in this particular case because of the extreme weakness of the patient at the time. If the patient's general condition had improved it might have been performed at a second cystoscopy. However, sudden rupture necessitated immediate operation. Careful questioning failed to reveal any history of trauma either remote or recent.

Rosenkranz clearly discussed the importance of making an early diagnosis of kidney rupture in order to ascertain its extent and to institute the proper treatment. We wish to emphasize that a sudden rapid rise of temperature and pulse, increase of the leukocyte count accompanied by general weakness and shock, progressive tumor, appearance of an immovable dullness in the upper abdominal and lumbar region are indications of rather grave type of rupture demanding immediate surgical intervention. The sooner the operation the more likelihood there is of preserving the kidney. In cases in which the rupture is slight the treatment outlined by Rosenkranz is particularly good when there is co-existent hemorrhage. On account of the protracted illness of the patient a repair of his hernia was not attempted. It would be well to do this before muscle atrophy has progressed too far.

CRETINISM AND ITS RELATION TO THYROID DISEASE*

By CHARLES CALVIN TIFFIN, M. D.
Seattle

THAT the thyroid gland prepares from iodine a substance known as thyroxine has been definitely shown by Kendall, also that in a normal healthy individual the quality and the quantity of thyroxine secreted are maintained as the individual requirements necessitate. While the thyroid gland has been called the governor of metabolism, it cannot accomplish its work alone. It must have a normal working agreement with all the glands of internal secretion. Of its association with some of the endocrine glands little is known, but of others more is understood. A conspicuous and everyday observation of a loss of one of the thyroid's chief association in metabolism is the difference, for example, between the steer and the bull. The steer has lost the influence of the internal secretion of the testes. What is the result? Longer bones, less muscular development, and many other conspicuous differences.

Remove the thyroid gland of the young calf and leave the testes, and an entirely different individual develops. In the first instance the incentive to specialized growth has been removed; in the second instance the testes have not been interfered with and yet an artificial cretin is produced with very little or no development of the sex organs and a very poorly developed anatomic structure throughout. The bones are much shortened, the epiphyses are late in closing or fail to close. The hair is poorly developed, the mentality of the animal is disturbed, and the whole endocrine system is upset.

In discussing cretinism it is not necessary to review the characteristics, but I wish to emphasize that there are many types of these unfortunates

whose deficiencies depend on the amount of thyroid tissue remaining, on the quality of the secretion coming from the remaining tissue, and on deficiencies in other endocrine glands. The lack of interest in this subject is greater than it should be, and consequently in most localities not enough is being done to elevate our general level of scientific knowledge in this field. This is more particularly true in publicly maintained institutions, where the most favorable opportunity for study may be found.

Recently I visited a state institution of 800 inmates who are largely congenital defectives. They are cretins of all types, mongolian idiocy of many types, and numbers of other types of defectives. This institution is clean, efficiently managed in every way except that scientific research and study are not carried forward as they should be, and the physicians in the locality do not even visit the institution.

Examination of cretins in the large majority of instances reveals either an irregularly developed cystic type or absence of thyroid gland. Post mortem examination usually shows some remaining vestige of thyroid tissue.

In examining 127 cretins I found the thyroid gland definitely palpable in thirty-seven, indefinitely palpable in forty-one, and apparently absent in forty-nine. In the thirty-seven whose thyroids were palpable the average height of males and females was 48 inches, while it was 45 inches in the forty-one whose thyroid were indefinitely palpable and 47.5 inches in the forty-nine in whom I could detect no thyroid gland. Typical cretins were found from 29 to 68 inches in height. Mental development varied from almost none to mediocre, and in the higher types there was considerable intelligence. Ability to articulate varied from guttural unintelligible sounds to articulated words and sentences.

Of these 127 patients eighty-eight were examined in Switzerland, and thirty-nine were seen in Wyoming, Colorado, Oregon, Washington, Idaho, and California. Of the eighty-eight examined in Switzerland twenty-nine had definite enlargement of some type of the thyroid, nineteen being cystic-pendulant, seven adenomatous, and three colloid hypertrophy. Thirty apparently had vestiges of thyroid tissue, and in twenty-nine I could detect no thyroid tissue. Of the thirty-nine American patients nineteen had no thyroid tissue that could be recognized, seven showed appreciable enlargement of the thyroid, cystic or adenomatous in type, and thirteen had a very small amount of thyroid tissue. The mental development seemed to bear no relation to the thyroid tissue as determined by palpation.

Satisfactory family history records were available for seventy-nine of the 127 patients. Forty-one showed at least one goitrous parent; eleven showed both parents to have had some type of goiter. Five showed that at least one parent had been confined either to a feeble-minded institution or an insane asylum. In eight cretinism had existed in the family, two of the eight having a cretin parent.

A definite history of thyroid or iodine therapy over any length of time was recorded in but eleven cases. Five had been for ten years or more under continuous or nearly continuous iodine or thyroid feeding. Definite improvement had been noted in

* Read before the Annual Session of the Utah Medical Association, Salt Lake City.

eight, some improvement in one, and no appreciable improvement in two. In but four patients had the record been followed by the same observer and no definite notes were made as to what he considered as improvement in five of the eleven patients. In three of these the observer had noted an appreciable change in the mentality and an increase in the length of the long bones, while in two increase in height only was recorded. Of the eleven patients treated the average age was 17.5 years. In most of the other 116 patients therapy of some type for short periods was occasionally noted, but no evidence was recorded of early diagnosis and consistent treatment.

I have had opportunity of seeing or doing but three autopsies on cretins. One was an infant of two months, in whom no evidence of thyroid tissue was found. Another was 11 years of age, and the third was 41. The 11-year-old boy had a small amount of atypical thyroid tissue in the right side of the neck, and the 41-year-old woman had a cystic pendulant mass developed in the region where the left lobe of the thyroid should have been. The pathologist reported a small mass of atypical thyroid tissue at the base of the cyst. I believe that where no thyroid gland was evident on physical examination some gland tissue would have been found at operation or post mortem, probably of an atypical variety.

From the above data it seems that cretinism is rather common in the Northwest, as well as in Switzerland. Certainly we must agree that hypothyroidism is associated with other endocrine disturbances and that these possess distinct hereditary tendencies. Certainly our pioneers, who came largely from the plains and nongoitrous regions of the East, did not have goiter any more frequently than those of their friends left behind. We are not possessed of information as to the incidence of cretinism in the United States over a very long period, but from personal observation and investigation I believe that it does occur commonly in the goitrous regions of the world and, therefore, we must consider endemic goiter and cretinism closely related and associated, the endemic goiter preceding the cretinism in the family tree. Four or five generations is a long time in the history of the West, but a short time compared with Switzerland, which has existed as a republic since 1292 and where marriages between persons of low mentalities must be a common occurrence.

Evidence seems to support the prophecy that unless we prevent and cure our endemic goiter patients we are going to have an increase in cretinism. The problem, of course, will be to educate the public generally to understand that it is going to be necessary to supplement the food taken by the mother through the giving of iodine and thyroid products not only during pregnancy but during the growth of the child. A careful study of all patients, looking toward the discovery of hypothyroidism and its prevention and cure, is certainly important. Adequate tests for possible hypothyroidism are as important as a urinalysis and should become routine in the study of patients.

I know of cases of hypothyroidism or cretinism where both parents are fairly normal. In a country such as ours, where there is a deficiency of iodine,

unless the mother secures iodine during the embryonic life of the infant there is danger of a deficient child. I believe that all obstetricians should give careful attention to this, and also to the history of the parents as to the possibility of goiter in the family. When obstetricians do this and take the basal metabolic rate of the mother from time to time much will have been done to meet the therapeutic indication in the interest of the child.

CONCLUSIONS

1. Endemic goiter and cretinism are closely allied conditions, with much evidence supporting the theory that endemic goiter continuing untreated through several generations is the father of cretinism.

2. Our public institutions housing defective individuals should be made institutions for consistent study and investigation by physicians, looking toward increased knowledge in this field.

3. To get the most favorable results in the treatment of cretinism:

- (a) Prevent marriage of mental defectives and, if they are allowed to marry, sterilize both of the parents.
- (b) In endemic goitrous territory prevent goiter in the child by treating its parents from babyhood to adult life and the mother during pregnancy.
- (c) Begin to treat all cretins in infancy and treat consistently, recording carefully all progress at stated intervals and continue treatments during the lifetime of the individual.

REVIEW OF NECROPSIES, MEDICAL SERVICE, LOS ANGELES GENERAL HOSPITAL

By NORMAN CARR PAINE, M. D.
Glendale

TWENTY-FIVE necropsy protocols of patients from the service of John W. Shuman, Los Angeles General Hospital, who died during 1925 and 1926 form the basis of this discussion. Similar summaries and analyses of necropsy findings in relation to clinical data are given at frequent intervals, usually by the pathologist. This report is from the clinician's point of view.

Grouping the twenty-five cases roughly, there were nine where the cause of death was cardio-renal-vascular. These were divided as follows: three, of pericarditis, one of these and one other, mitral and aortic endocarditis, three of generalized arteriosclerosis, one aneurysm, and one chronic nephritis. However, in nineteen of the twenty-five cases kidney abnormality was noted. In seven cases the fatality resulted from pathological conditions in the gastrointestinal canal, two from gastric carcinoma, one from carcinoma of the head of the pancreas, two from gastric ulcers, and two from ulcerative colitis. Two died from pulmonary tuberculosis, and two from brain tumors. There was one instance of pernicious anemia. Sepsis was responsible for death in three cases, one peritonitis, one pyemia following maxillary sinusitis, and one meningitis complicating mastoiditis. In one case the pathologist was unable to assign any cause of death.

The usual comparison of diagnostic impressions with pathological findings gives a false impression. With our exact laboratory and x-ray examinations we have many clinical facts gathered together, but diagnosis is largely a matter of deductions, inferences and the personal equation. The pathologist

deals only with anatomical facts, and often refrains from even expressing opinions. Some conditions are strictly clinical, while others are almost as strictly anatomical.

For example, there were two cases of uremia in the series, one with a nonprotein nitrogen of 300 mgm. per 100 cc. of blood and a creatine of 10, the other with 200 nonprotein nitrogen and 10 creatine. The pathologist described chronic diffuse nephritis in both, and in the first generalized arteriosclerosis as well. Obviously uremia is a clinical condition, not a post mortem finding. On the other hand, of three cases of pericarditis, one with effusion was recognized ante mortem, the other two, as is often the case, were diagnosed only at post mortem. Myocardial failure was the clinical picture in these. The clinician diagnoses chronic myocarditis with decompensation, but the pathologist sees only dilatation and hypertrophy of the heart. In three of the cardiorenal group positive Wassermanns were present, and it was disappointing that the pathologist did not make reference to this except in one of the protocols. If we include one other case in which the cardiorenal pathology was outstanding, ten, or 40 per cent of the twenty-five cases belong in this class. The clinical and pathological conclusions agree in all these cases with the above qualifications.

The gastrointestinal cases comprise 28 per cent. A patient with carcinoma of the pylorus died under nitrous oxide anesthesia before an exploratory incision could be made. The other carcinoma of the stomach, previously reported,¹ had a resection of a large part of the stomach seventeen years before. He had no recurrence of symptoms for sixteen years, but died of inanition and marked anemia with a tiny funnel-shaped carcinomatous stomach 12 cm. long and 7 cm. across at the top. The carcinoma of the head of the pancreas was diagnosed by only one physician. There was absence of free hydrochloric acid in the stomach, and several examiners agreed on a carcinomatous liver, the location of primary growth unknown, with probably chronic gallbladder disease.

The two dying of ulcer were diagnosed clinically. The first, a man 79 years old, was considered probably malignant, and there was so much tenderness and rigidity that perforation was also diagnosed. Without microscopic sections the pathologist denied malignancy, and the perforation was not complete. The other case was clinically a death from repeated hemorrhages and marked anemia, but pathologically a terminal rupture (2.5 cm. in diameter) caused death. The pathologist described "considerable dirty fluid in the abdomen, but no peritoneal reaction." Of the two ulcerative colitis cases only one was proved amebic. One patient was 71 years old, the other 32. Both had had symptoms for years, but died after one week of acute dysentery.

There were two cases of pulmonary tuberculosis. One of these was a coroner's case; the patient was in coma suggesting a cerebral lesion. He lived only a few hours and was the only case not diagnosed clinically. The other tuberculosis case illustrates a fault which is more responsible for missed diagnoses than any other thing. In his haste the physician

on the genitourinary service was satisfied to establish a genitourinary diagnosis and failed to make a calm, judicial, complete diagnostic examination. This patient was sixty-one days on the genitourinary service, diagnosed as having hydrocele, varicocele, and probable carcinoma of the prostate. He died after sixteen days in the medical ward, but not before examination revealed advanced pulmonary tuberculosis and tuberculosis of the vertebrae confirmed by x-ray.

The two brain tumor cases were in the hospital, one five weeks, the other several months, and neither was diagnosed quickly enough to offer any hope from surgical procedures. The patients were boys of 17 and 19 years. One was variously considered encephalitis, tuberculous meningitis, typhoid (because of a positive widal) and finally frontal lobe tumor. He had a glioma of the left temporal lobe. The other boy was admitted to the contagious disease ward as "meningitis" and was in the hospital for months. He lost the sight in one eye and had a marked papillitis in the other. The diagnosis of brain tumor was finally made, and he was being prepared for operation when he died. The pathologist discovered hemorrhagic glioma of the right cerebellar hemisphere.

The case of pernicious anemia had "the typically negative findings" at autopsy. However, nephritis was a possible cause for the anemia.

The group classed as "septic" contains three cases. The patient with purulent meningitis, following mastoiditis, was in the hospital three hours. The one with pyemia following a maxillary sinusitis of six years' duration, lived two days. He had bilateral pyothorax, multiple lung abscess, and cellulitis of the shoulder. These two, seen earlier, would have been surgical cases. The third case died with acute peritonitis. This man was dropsical, with severe heart and kidney disease. The peritonitis was of undetermined origin. However, there was an abdominal paracentesis a few days before death which either through the wound of entrance or by perforating the bowel might have contaminated the ascitic fluid. This patient also had an unrecognized ulcerative colitis.

One autopsy revealed no adequate cause for death; the clinical diagnosis of dysentery was undoubtedly correct.

In reviewing the complete anatomical diagnoses the failure to clinically recognize and record pulmonary conditions is most noticeable. This is undoubtedly partly due to our noisy wards and lack of private examining rooms. Terminal bronchopneumonias were not diagnosed in five patients, and hydrothorax was missed four times. In some of these the degree of pathological disturbance was insufficient for clinical recognition, and some of the patients were left undisturbed during their last day or two of life for just and sufficient reasons.

The large part played in diagnosis by the x-ray is significant. Four stomach cases, one of tuberculosis, one of aneurysm, one of pericarditis, all told 28 per cent of the series, were accurately diagnosed by the roentgenologist. Blood chemistry done in eight cases was abnormal in only two, the uremias. Electrocardiograms were not essential to diagnoses

1. "Carcinoma of Stomach," John William Shuman, M. D., J. A. M. A., April 10, 1926.

in this series. Stool examination was valuable in six cases, stomach analysis in three. Differential blood count and negative examinations of other kinds led to the diagnosis of pernicious anemia. Routine urine analysis revealed albumen and casts in seventeen of the nineteen which anatomically had abnormal kidneys, and yet the presence of nephritis was only recorded in the clinical diagnosis in one-half of these. This high percentage of nephritis should not be forgotten by those ambitious to foretell the anatomical diagnosis.

The review of these twenty-five records shows that the clinical work has well withstood the searchlight of post mortem examination. The teamwork between the pathological department, the x-ray department, and the medical service in arriving at a correct clinical diagnosis is especially pleasing.

CAESAREAN SECTION IN OBSTRUCTED Pelves*

By R. KNIGHT SMITH, M. D.

AND

T. HENSHAW KELLY, M. D.

San Francisco

DISCUSSION by Charles Harold Lewis, Santa Monica;
John Vruwink, Los Angeles.

IN a pelvis obstructed by any cause whatever, the problem confronting the obstetrician during pregnancy in such a case is the delivery of the child with the least risk to itself and to its mother.

It is certainly true that, with contracted pelves of one sort or another, spontaneous delivery will occur in almost 80 per cent of patients, but it is with the remaining 20 per cent that we have to deal in this paper—the problem of when to do caesarean section.

Caesarean section was first introduced in the pre-antiseptic days, as an operation to be done when all other means, including the patient and midwife, which might bring about delivery, had been exhausted. Naturally the operative mortality was enormously high—50 to 85 per cent—so that it remained an operation to be done only to prevent a woman dying undelivered.

However, when Sanger in 1882 revived the operation and made a reasonable surgical procedure out of it the mortality rate was reduced to a point where the operation not infrequently permitted a patient a better chance of life than any other obstetrical procedure would have done. Therefore it was recognized that we had a procedure which, if carefully used and skillfully done, inherently possessed a low operative mortality and the operation became quite generally used and, as its performance became more widespread, improvements and modifications were added which brought it to its present status.

The most proper use of caesarean section is in patients whose pelves are too small to permit delivery through the natural passages without severe injury or death to the child. The burning question today is, therefore, "What should we consider the indications for a section?"

No one disputes the absolute indication in the patient whose true conjugate is 6.25 cm. or less, but the relative indications are very heatedly discussed. Let us briefly consider the alternatives presenting themselves.

In patients upon whom careful pelvic measurements have been made and the pelves found to be contracted beyond limits where spontaneous delivery may be hoped for the following choice of procedures presents itself: 1. Induction of labor some weeks before the expected date of confinement. 2. An attempt at forceps delivery. 3. Version. 4. Caesarean section.

1. Induction of labor prematurely offers some risk to the child though little to the mother. Spencer says that, among 5647 women delivered at the Maternity of University College Hospital, premature labor was induced for contracted pelvis 113 times with a maternal mortality of 0 per cent and twelve fetal deaths or 10.6 per cent. At the Rotunda Hospital the fetal death rate in induced premature labor was 12.5 per cent. Thus it is seen that in this procedure we lose in the neighborhood of 10 per cent of the children, if not at delivery, by prematurity.

2. If when the patient goes into labor she succeeds in engaging the head in the pelvic brim, and if we know that the pelvic outlet is not an impossible one, it is permissible to attempt delivery by forceps and this is usually successful, though it means a certain risk to the fetus. G. Ritterhaus in 1925 reported a fetal mortality of 3.78 per cent in forceps deliveries in 8.32 per cent of 17,942 deliveries, the mortality rising, the higher the forceps application. However, when the head remains above, and cannot be pushed into the brim after the second stage begins, we feel that the application of forceps to the floating head is not justifiable.

3. In the last-mentioned instance we also feel that an attempt at version and extraction is not justifiable, as we have no assurance that a head can be pulled through last instead of first. Potter has a fetal death rate of 6.27 per cent in versions upon average, normal patients, so that this maneuver would be accompanied by too high a fetal death rate.

4. We believe that in patients with contracted pelves of any degree who have been allowed two hours of second-stage pains, and in whom the head remains above the brim, caesarean section is the operation of choice. Let us consider its mortality.

A. Routh in 1911 published a study of the caesarean sections done by British obstetricians up to 1911 and found a maternal mortality in contracted pelvis of 2.9 per cent when the operation was done with the membranes intact, 10.8 per cent after they had ruptured, and 34.3 per cent when repeated vaginal examinations or attempts at delivery had been made. Holland in 1921 reported 1953 caesarean sections in England for contracted pelvis from 1911 to 1921 and found a mortality of 1.6 per cent when done before labor, 1.8 per cent when done early in labor, 10 per cent when done late, 14 per cent after induction of labor, and 27 per cent after attempts at delivery had been made. The total mortality for the series was 4.3 per cent. Williams reports 253 cases with a rate of 2.45 per cent. De Lee in 1925 reported 330 cases of all sorts with a death rate

* Read before the California Medical Association in General Meeting, at the Fifty-Fifth Annual Session, April 29, 1926.

of 0.6 per cent, using the incision through the lower uterine segment. Spencer in 1925 reported ninety-eight sections done by him for contracted pelvis with a mortality of just over 2 per cent. Thus in these men's hands the mortality averages about 2.63 per cent.

If the operative mortality of caesarean section can be reduced still more it becomes a question as to whether or not the child should not be given more consideration than it is, for there is no doubt that if the maternal and fetal mortality rate in a series of difficult high forceps deliveries are added together and divided by two the result will be a greater combined one than that of well-considered and well-done caesarean section.

The cases presented here were done from 1909 to 1925 inclusive, and were done for the most part after the patient had been given a test of labor with full dilatation of the cervix and the head still floated or where the mother or the child showed evidences of exhaustion before the head had engaged or the cervix had completely dilated in spite of hard labor. A few were elective and were done because of absolute indications or because of previous obstetrical catastrophes in the hands of competent obstetricians. Finally the group which was done because of previous caesarean section is added. These were all a week before the expected date of confinement.

In 4954 deliveries, 1909 to 1925 inclusive, 159 sections were done because of failure of engagement of the head after labor or because of pelvic measurements and past histories that elected caesarean section as the method of delivery. Five patients were sections because of fibromyomata obstructing the birth canal, and three because of cysts which were fixed in front of the presenting part—two ovarian and one intraligamentous. This is at the rate of 32.2 per 1000.

After April, 1924, we began using the low incision, and there are thirty of these operations included in the series. The only death in the series is the patient first operated upon by the low method who died on the fourth day from paralytic ileus. This gives a mortality rate in the series of .59 per cent.

Of the children two twins and one other were stillborn, making the infant mortality rate 1.8 per cent. The single pregnancy was known to have a dead fetus, but also had large uterine fibroids, a small pelvis and a bischial diameter of 7.5 cm., so that caesarean was selected. The twin pregnancy gave no audible heart sounds at time of entrance to hospital, but mother asserted fetal movement and with a small pelvis and breech failing to engage, section was done. Both babies were dead and the cords were macerated. The membranes were unruptured in the patient who died.

Thus we have a maternal mortality rate in this series of .59 per cent, and the general rate for pregnancy which is causing concern in the United States is .8 per cent. If we add to this series those caesareans which were done in this period because the patients had had previous sections, we find eighty-one operations done for this cause, with no deaths of mothers and one stillborn child, a fetal mortality of 1.2 per cent. We put these figures in to show that in patients who have no complications such as

toxemia or hemorrhage the operative risk is very low. Adding these two series together we get a total of 248 cases with one maternal and four fetal deaths, rates of .4 per cent and 1.6 per cent, respectively. This caesarean rate is 50 per 1000.

The operations used were the classical high caesarean in the first 204 cases, and the last forty-four were the laparotrachelotomy as named by De Lee.

Rectal examinations alone are used until we are ready to deliver by one means or another, so that vaginal examinations do not complicate our decisions.

With a possible mortality such as this we feel that many times we are justified in performing a section rather than attempting a problematical delivery.

DISCUSSION

CHARLES HAROLD LEWIS, M. D. (210 Medical Building, Santa Monica, California)—There are several features about the report of Doctors Smith and Kelly which I should like to emphasize. First of all must be considered the fact that the large majority of caesarean operations that have been performed have not been at the hands of such skillful operators. "Sections," like tonsillectomies, are in many quarters considered fair meat for all. Probably many general surgeons might perform the operation in a superior manner, but how often is this technical ability combined with the obstetrical judgment necessary for results to be ideal? I am sure that one of the reasons that the authors are able to report such a remarkably low maternal and fetal mortality is because of their superior obstetrical judgment. In other words while the patient was given a thorough test of labor, yet there was no unnecessary delay nor procrastination, factors which are vital. All statistics of caesarean operations show proportionately much more favorable results where operation was performed without unnecessary examinations early in labor and before rupture of the membranes.

My own practice has been to examine vaginally under aseptic precautions all primiparae regardless of pelvic measure two weeks before the expected date of confinement. If at that examination the fetal head is not engaged (leading point at the level of the plane passing through the tips of the ischial spines) this patient is marked for observation. I say "regardless of pelvic measurements," for in practical pelvimetry the important consideration is not the usual measurement in centimeters but the relation of passenger to passage, of fetal head to pelvis.

This patient is examined one week later and if at that time the head is engaged a normal delivery is expected. If engagement has not taken place observation is continued. In either case, if labor ensues and engagement does not occur by the time the os has dilated to admit two fingers I perform section in preference to the alternative of difficult and prolonged labor and forceps delivery. Perhaps my procedure is a little more radical than that of the authors, but my plea is for accurate obstetrical judgment and prompt section when indicated, believing that thereby lower fetal and maternal mortality will result even in the hands of those less skillful than the authors.

JOHN VRUWINK, M. D. (1021 Pacific Mutual Building, Los Angeles)—It is easy to agree with the authors to the effect that a caesarean—preferably a laparotrachelotomy—should be done when disproportion is evidenced by a high head after two hours of second-stage labor. A test of labor is only applicable to the second stage. We do not expect appreciable descent during the first stage.

Disproportion is the one logical indication for a caesarean, whether or not it takes two hours of second-stage labor to prove the dystocia. I do not believe, however, that all high heads, even after two hours of second-stage labor, are caused by disproportion. Certainly we must distinguish between dystocia due to disproportion and dystocia due to maladjustment between the passenger and passages. In the occiput anterior positions we expect lightening, in primipara, before the onset of labor. In the occiput posterior positions we are not disturbed to find a high head. After two hours of second-stage labor, however, we should find that any high head has become definitely engaged.

Because we do have failure of descent because of mal-

adjustment, particularly extension of the head in posterior positions, simple rupture of the membranes will occasionally eventuate in spontaneous delivery. For the same reason version and extraction has a distinct and large field of usefulness, because it is reasonable to believe that the maladjustment is corrected by the turning of the baby, and the smaller diameters of the head may then be guided through the larger diameters of the pelvis.

I believe the conclusion drawn from the figures given are a wholesome argument for clean obstetrics and clean obstetrical surgery.

T. HENSHAW KELLY (closing)—There is very little to add to the discussion of Doctors Lewis and Vruwink except to say that we agree with their statements in general.

In primiparae, in whom engagement of the head in a posterior position has taken place after rupture of the membranes, manual rotation of the head to an anterior position can often be accomplished followed by spontaneous or instrumental delivery. We never try to deliver a primipara by any other means than a section if the cervix has dilated without engagement of the head occurring.

SKIN CANCER OF THE FACE AND NECK

By C. RAY LOUNSBERRY, M. D.
San Diego

ALL that we know of the earliest forms of skin cancer is that it begins as a local mass of abnormal cells of peculiar character. These become activated in some mysterious manner and form a network of cells which invades the adjacent tissue, destroying all normal cells with which they come in contact. The cancer cells spread by direct contact with the adjacent tissue; by the hematogenous route; and by the lymphatic system.

The seriousness of the lesion depends upon the organ which it attacks, its site, and the type of cancer cells found. The lesion may be globular, infiltrative, nodular, tubercular, lobulated, polypoid, cauliflower, papillary, fungus, flat or villous in configuration. Cancer growth may be atypical, not resembling normal tissue or typical in which normal tissue it resembled. Embryologically the growth may develop from any one of the germinal layer, the ectoderm, the mesoderm, or the endoderm, or it may have morphological characteristics of two or more layers.

The blood supply of these tumors is not typical, but is composed of reconstructed sinuses lined by endothelium; thus being constructed by such atypical material it easily breaks down and hemorrhage and ultimate complete necrosis follows. When a patient reports for diagnosis and treatment we can go into the subject with much more confidence after we know the type and class of lesion, including the pathogenic changes in surrounding tissue.

A type of tumor of particular interest to the dermatologist is one which although benign at the time ultimately becomes malignant. Benign, encapsulated tumors cause little worry, but a metastatic growth correctly diagnosed epithelioma always is something serious. When examination shows a piling up of cells on top of normal epithelium we must begin the work of eradication. So many patients ask for treatment too late. Why is it so difficult to educate the public about prevention? I feel that every physician who notices any form of hypertrophy of cells upon apparent normal epithelium should advise immediately with a dermatologist with the

hope of thereby diminishing the mortality of cancer. The cure of skin cancer, of course, is in drastic removal of growth while it is still in the benign stage.

The type of cancers that concerns us most are those which consist of an abnormal production of basal or squamous cell epithelium. They manifest themselves by epithelial proliferation in the upper layers of the epidermis and corium, and are usually superficial in character. Their growth is an out-pouching process in which normal cells are replaced by cancer cells. A single superficial ulcer will form which later fuses into another undermined layer. This continuous degeneration produces the necrotic-like appearance which distinguishes rodent ulcer. The border of the ulcer is rolled, hard, and slightly nodular, and is composed of basal cells. The tendency to metastasis in this type of growth is almost nil, but sometimes we see signs of metastasis in them as we do in the squamous cell variety. Most European authorities maintain that all rodent ulcers are superficial in type. It is because of these fundamental characteristics that this variety is amenable to successful treatment.

The best method of treatment is by the complete destruction of the abnormal growth. Excision with an electric cautery knife, electrocoagulation by the diathermic method, the quartz ray and radium are the agencies used at the present time.

Depressed or atrophic scar-like cancers are often found associated with a generalized scleroderma and are often found among patches of extensive keratoses. This form is characterized by depression without a great deal of infiltration. They usually appear in the frontal or temporal region above the level of the eyes. Their growth is slow, and treatment of this type of cancer progresses just as slowly. The periosteum of the frontal and temporal bones are many times involved when the growth penetrates the bony structures. The prognosis for complete recovery is doubtful. Radium seems to be the only treatment in this form of cancer.

Another type of skin cancer is the lupus vulgaris-sloughing variety. The lesion at first is about the size of a grain of wheat, and may be necrotic from the beginning or hard and nodular in consistency, or show no sign of necrosis or elevation. The epidermis may be first involved, and then the deeper structures may ulcerate, thus producing the lupus vulgaris form. This form is often diagnosed as a lupus.

We often come in contact with the hypertrophic form of growth. This group is characterized by an out-pouching of epithelium under which is an area of sloughing, necrotic tissue. The odor from this form is very noticeable and they grow rapidly, involving all structures with which they come in contact. They resemble a head of cauliflower.

The morphea-like type is a form which is very rare. They occur as flat patches of ivory or yellowish color. This variety may be infiltrative in nature with rounded lilac-colored borders. These areas are found on the face and neck and are wrongly diagnosed as a circumscribed scleroderma, because they assimilate a morphea. This form is of superficial nature.

Skin cancer of the face and neck can be divided

into the deep group and the superficial variety. The deep group begins as a subcutaneous involvement, affecting the deeper structures while the superficial epitheliomata manifests themselves on the epidermis in the form of scaly dermatoses. All types come under one of these groups.

The point I wish to emphasize strongly in the treatment of skin cancer of the face and neck is the necessity for an early diagnosis. This usually falls to the lot of the general practitioner. He is the one who should warn the patient of danger and should preach the gospel of cancer extinction. The outcome depends largely upon whether or not the condition is diagnosed before metastasis takes place.

Successful treatment of skin cancer depends upon such factors as resistance of the individual, the type of lesion, the duration of the disease, the former treatment, as well as the age of the patient. After a complete history has been taken and after definite diagnosis has been made, then the overgrowth is destroyed by diathermic coagulation. Following this procedure the ultra-violet rays are used to stimulate granulation, and also to aid in the process of elimination of by-products which are harmful to the growth of new cells. The action of the rays is an aid in the production of a better cosmetic effect in the resultant scar. If the area is too extensive and if the periosteum is involved plastic surgery should be utilized.

In conclusion I wish to state that nothing has been discovered which surpasses radium in the treatment of skin cancer of the face and neck, especially if other physical agents, including high frequency, carbon dioxide snow, the water and air-cooled ultra-violet ray are used to supplement it. Finally the early diagnosis and the early treatment of benign lesions found so often on the face and neck may cause the disappearance of this dreaded disease. Let us all enroll in a society with the motto, "The early destruction of any form of hypertrophy."

The medical student is required to devote five years of his life to special study before he is entitled to practice as a fully qualified doctor. Now a period of five years is a big slice out of one's life: the average expectation of life at birth for the people of these islands is fifty-five years, and thus the minimum medical curriculum represents the eleventh part of that expectation.

These five years—say from 18 to 23—are some of the best years, perhaps the best, of the student's life. It is at least unlikely that the years succeeding them, bringing as they inevitably will serious responsibilities and (after the meridian) progressively waning powers, will provide him with a fuller measure of happiness than he is capable of snatching from those previous five years of student life.

Let not the student therefore look upon these years of probation as a long-drawn-out period of irksome bondage, from which release into joyous freedom is only to be achieved by successfully surmounting a series of disagreeable obstacles in the shape of test examinations. Let him rather count each individual day of his curriculum as part of the great gift of life at its most entrancing phase. Seeing that, once passed, it never returns, let each day be lived and enjoyed to the full.—*The Medical Press and Circular* (London).

The total number of known lepers in the United States is somewhere in the neighborhood of 300, and it is probable that not far from an equal number remain unrecognized.—*Med. Times*.

CLINICAL NOTES, CASE REPORTS AND NEW INSTRUMENTS

ACRODYNIA

CASE REPORT

By J. W. ROBINSON, M. D.
Los Angeles

(From the Diagnosis Division, Los Angeles County Health Department)

EDITOR'S NOTE: A. J. Scott, Los Angeles, in the July, 1926, issue of CALIFORNIA AND WESTERN MEDICINE in his article on "Acrodynia" also reports a case.

ACRODYNIA is probably more frequent than the limited number of reported cases would indicate. Possibly most of the cases are not recognized.

In November, 1920, Byfield,¹ reported a case. The masterful article by Bilderback² gives a rather complete bibliography. An editorial in the *Journal of the American Medical Association*, October 17, 1925, calls attention to this disease; and Rodda³ reports seventeen cases.

The following patient exhibited no special features, but a report is made thereon in order to call attention of more of our colleagues to this disease.

B. S., a 6½-year-old girl, had an onset during November, 1926, exhibiting general malaise with anorexia, indefinite pains in the stomach and transitory pains in the joints. These symptoms had followed some dental work. Her physician concluded that the symptoms were due to absorption of toxins, and the child was referred to a dentist who extracted one of the filled teeth. The symptoms continued with the addition of perspiration and a burning feeling in the hands and feet.

The child was now taken to another physician who stated frankly that he did not know what the condition was and suggested that she be taken to a hospital clinic. In January this was done and, because of the drowsiness and prostration, a provisional diagnosis of epidemic encephalitis was made. Further observation, including a lumbar puncture and examination of the spinal fluid, convinced the hospital physicians that the child did not have epidemic encephalitis.

After a few days the child was allowed to go home without a definite diagnosis having been established. The eruption on the hands and feet was diagnosed as prickly heat.

I was asked to see this child on March 8. I found her with typical symptoms of acrodynia. The hands and feet were intensely red with marked desquamation. There were a few vesicles around the fingers and on the toes. To the touch, the hands and feet, forearms and legs, were extremely cold. The degree of weakness was extreme and there was a fair degree of photophobia. Perspiration was so extreme the mother stated that she could hardly change the bed clothes frequently enough to keep them dry. There was a marked degree of anorexia. The child complained of various pains. These were transitory and referred to various parts of the body. The diagnosis of acrodynia was made.

The child was placed on a rather liberal diet, with the addition of cod-liver oil and orange juice. Within two weeks' time there was an improvement, followed by a

1. Byfield, A. H.: *American Journal Diseases Childhood*, 20:347, November, 1926.

2. Bilderback, J. B.: *Journal of the American Medical Association*, 84:495, February 14, 1925.

3. Rodda, F. C.: *American Journal Disease of Childhood*, 30:224, August 1925.

slight relapse in the condition of the hands and feet. However, this lasted only a few days. At the present date the child has apparently made complete recovery except that full strength and lost flesh has not been fully regained. Whether a well-regulated diet with an adequate supply of vitamins has caused the improvement is difficult to determine. The duration of the illness was such that she might have reached that stage where improvement would have occurred under any régime.

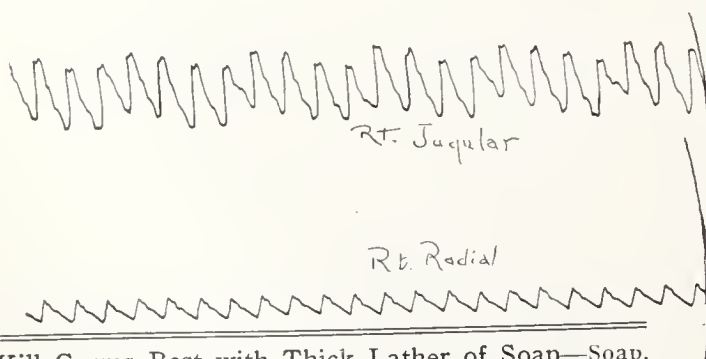
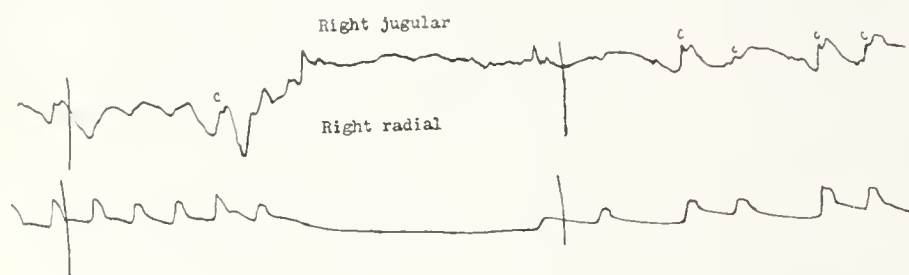
There are many features about this disease that parallel pellagra, rickets, and beri-beri. The suggestion that acrodynia may be a nutritional disorder with a possible insufficient supply of vitamins, seems worthy of careful investigation.

EPHEDRIN IN ADAMS-STOKES SYNDROME

By MERRILL HOLLINGSWORTH, M. D.

Santa Ana

Ephedrin would be expected to have the same effect on Adams-Stokes syndrome as epinephrin, except that the influence of the former should be more lasting. Subjoined is a polygram of a woman, age 68, who had been having an average of three attacks every ten minutes, which prevented her sitting up. Barium chloride was given, but no effect was noted with the recommended dosage 0.03 gram t. i. d. On giving ephedrin, one 0.05 gram capsule by mouth, the attacks ceased within thirty minutes, and did not recur for thirty-six hours. On taking one capsule each morning she was completely freed from the attacks, and was able to resume her household duties. After taking the drug three weeks, it was withheld, but the attacks recurred in forty-eight hours, so its use was resumed. It was interesting to note that the feeling of trembling in the knees that accompanied the administration of ephedrin the first few days disappeared on its continued administration.



Kill Germs Best with Thick Lather of Soap—Soap, according to investigators in the United States Army Medical Corps, is the most valuable ingredient of any of the dentrifices in relation to the prevention of infection, reports *Hygeia*. When the soap is applied as a thick lather and allowed to remain for a considerable time the most efficient antiseptic effect of the soap is secured. Immediate rinsing reduces the germicidal action to about one-fifth of the usual activity.

The use of ordinary toilet soap or dentrifices containing soap, and most powder and paste dentrifices generally contain ingredients of a soapy character, affords especial protection against infection with the organisms causing Vincent's angina.

CUTANEOUS SPOROTRICHOSIS

CASE REPORT

By PERCY B. GALLEGOS, M. D.
Stockton

SPOROTRICHOSIS is defined by Sutton as an infectious, parasitic disease, due to a species of sporothrix, and characterized by the formation of multiple abscesses in the skin and subcutaneous structures, and, occasionally, in one or more of the internal organs.

The first description of the condition was made by Schenck in 1898. Since that time several cases have been reported in both the United States and Europe.

The characteristic picture is one of a string of subcutaneous nodules, which develop along the course of the lymphatics, most frequently on the extremities or face. After a time these soften and form painless abscesses. These in turn perforate, leaving fistulas or ulcerated areas discharging a purulent material. The lesions are often mistaken for those of syphilis or tuberculosis. They rarely heal without treatment.

The disease is caused by an aerobic fungus, the *sporotrichum schenkii* of Smith. It has been recovered but a few times from the lesions in man, and has been isolated occasionally from the blood of those suffering from the cutaneous form.

Several species of sporothrix have been described; but recent work tends to show that some of them at least are identical with *s. schenkii*.

The microscopic picture resembles the lesions of cutaneous syphilis or tuberculosis.

Lesions similar to those described above which do not yield to ordinary treatment should be investigated in regard to sporotrichosis infection. An attempt should be made to identify the causative organism by smear or culture. Tuberculosis, syphilis, and blastomycosis should be ruled out.

Iodides internally are specific. Local applications of the tincture or Lugol's Solution aid in the cure.

REPORT OF A CASE

A. N., Italian, male, ragpicker and paper sorter, age 40 years, reported to the clinic of the San Joaquin Local Health District complaining of sores on his arms of ten months' duration. Past and family history were not remarkable.

He first noticed a nodule on the left wrist, and in the course of a week or so several more appeared on the volar aspect of the forearm and inner surface of the arm three-fourths of the distance to the axilla. After a time some of these broke down and started to discharge. When seen the condition was progressing.

On examination he was found to have a string of the characteristic lesions on the left arm and forearm. Some were subcutaneous nodules, while others had broken down and were discharging through the skin.

The Wassermann was negative. An attempt to isolate the fungus was unsuccessful.

The patient was given sodium iodide gr. xx t. i. d., and the lesions painted with tincture iodine. In the course of a week marked improvement was noted and in a month healing was complete.

JAMES H. PARKINSON

A MEMORIAL TRIBUTE *

By WILLIAM ELLERY BRIGGS, M. D.
Sacramento

ON July 22, 1926, death called one of our most noted and distinguished members, Dr. James H. Parkinson, at his summer home in the American River Canyon. The departure of Doctor Parkinson will be felt as a personal loss by every member of this society.

Doctor Parkinson was born in Dalkey, Ireland, October 28, 1859. At the age of 20 he was licensed to practice medicine by the King's College of Physicians, and a year later he became a member of the Royal College of Surgeons of Ireland. He spent about two years in the British merchant marine service as surgeon. During these years he visited many of the cities of Asia, Africa, South America, and the United States.

At the request of Dr. G. G. Tyrrell, he came to Sacramento and began the practice of medicine. Three years after his arrival in Sacramento he married Mary W. Bonte, daughter of Rev. J. H. C. Bonte, who was for many years secretary of the Board of Regents of the University of California. Mrs. Parkinson died in 1903. One son died in early youth and one son, Jack, and three grandchildren survive him.

The doctor's life was so intimately identified with the activities of the Sacramento Society for Medical Improvement and the state society that, when one contemplates the history of these societies during the forty-four years of Doctor Parkinson's residence in this state, one naturally thinks of the activities of our distinguished member.

The doctor became a member of our local society immediately upon his arrival in Sacramento and was soon elected its secretary. Later he served as president for two terms. In 1884 he joined the state society. He was also its secretary and was elected president in 1910. He was an active member of the Council after the reorganization of the society and was president of this body during the past four years.

As an evidence of his unceasing interest in society activities, I might mention the doctor's working over matters of the Council when he was in bed suffering a year ago, in order that his duties as councilor should be in perfect shape. Most men in his condition would be spending a great deal of their energy in self-pity or repining at fate.

When the standard of medical journalism was at a low ebb in California, the doctor started publication of the *Occidental Medical Times*. This work was done without expectation of personal gain, but was cheerfully carried on in the interest of the medical profession. After twelve years of arduous effort and much financial loss, he relinquished the publication. The files of this journal contain a worthwhile record of the progress of medicine during the years of its publication.

He was a member of many civic societies and

gave freely of his time to further the best interests of his city, state, and country. He was vestryman of St. Paul's Church for forty years. He was city physician for a number of years, and was a member of the State Board of Health and vice-president of that board for seven years.

Besides Doctor Parkinson's unusual activities in medical organization and education, he gave freely of his time and energy to all measures toward civic betterment. He was one of the most ardent workers in the creation of the present excellent charter under which Sacramento is now governed.

His indomitable will and pertinacity were exhibited in a high degree when the doctor almost forced himself into the service of the Government at the beginning of the war. In order to enter the service he had to use strategy and persistence on account of his age. He entered training camp before war was declared and returned to his practice after hostilities were ended. The financial loss, the hardships of camp life, the loss of practice apparently caused no regrets. His only regret was that he was not allowed to reach the battlefields of France.

The same courageous spirit kept him at his usual occupations, the practice of medicine, the scrupulous attention to his official duties as councilor and the arduous work of a member and vice-president of the Sacramento Chamber of Commerce. All of these duties were carried on for two years without his letting his closest friends know that he was suffering from a fatal disease that would soon terminate his earthly existence.

It is the unanimous sentiment of the members of this society that this society has suffered and the state has suffered a great loss in the death of Doctor Parkinson. The medical profession will greatly miss his stimulating influence and his interest in all that tends to raise the standard of medical practice and the usefulness of medical men.

As the great majority of us stroll along the Road of Life we see the monumental mile-stones erected by a great man. And as we sit by the roadside, resting and watching the race of the multitude, we see this same man forging far ahead and passing all others—looking forward to that goal of helpfulness to humanity. And, sometimes, as we tire at the foot of the mountain weary of carrying our burdens, we see this untiring worker picking up the burden of others and trudging on to place them properly at the destination and returning again to assist another group to carry on.

He did these things entirely unselfishly, and his greatest work was for the improvement of the health of the people through his work in the medical societies and in the work in his own community.

One of the greatest lessons taught by the life of Doctor Parkinson is that of unselfish devotion to those among whom and with whom he worked, and in his passing we should better realize our own responsibilities, carry our burdens more uncomplainingly and strive to better understand and emulate his unselfishness.

* This biographical sketch was read before the second meeting of the House of Delegates at its Fifty-Sixth Annual Session, April 27, 1927.

- BEDSIDE MEDICINE FOR BEDSIDE DOCTORS -

An open forum for brief discussions of the workaday problems of the bedside doctor. Suggestions for subjects and discussants invited. Useful extracts from letters will be published.

OTITIS MEDIA: WHEN IS PARACENTESIS INDICATED

Editor's Note: "Otitis Media" as here considered implies an inflammation of intensity sufficient to produce a "discharging ear." In former days, with many of the laity, and even with some members of the medical profession, a discharging ear was looked upon as a beneficent measure, by means of which nature safeguarded the afflicted individual from a vast amount of unnecessary pain, and not infrequently saved such a patient from grave intracranial complications. In the comfort of seeing the patient free from intense pain, and absolved for the moment from the menace of serious complications, members of the family and the physician heaved sighs of relief; and having left nature to follow its course, with spontaneous drum perforation as a result, congratulated themselves that the worst was seemingly over. The indirect cost exacted from many patients who went through this experience, such as the impairment of function in a sense organ which is so directly concerned with the economic efficiency and happiness of the individual, and the actual cost in time, money and comfort from nursing a diseased ear that might discharge more or less, throughout the whole lifetime, were for the moment presumably forgotten.

Happily, in recent years this mixture of a mistaken understanding of the significance of inflammations of the middle ear, with its possible far-reaching consequences, and of a somewhat fatalistic acceptance of this disease process, has given way to more rational viewpoint. As a consequence, the mortality from middle ear inflammations, both acute and chronic, has been very considerably lessened; and in corresponding degree, what might be termed the time span of the disease has likewise been greatly cut down.

The advent and application of aseptic principles has been responsible for much of this improvement.

Nevertheless the "when to do the paracentesis" requires oftentimes a keen insight of the nature of otitis media, as well as of each such patient's individual condition and resistance.

The discussion of these problems by the contributors on this subject should therefore be of real interest.

George A. Briggs, Sacramento—I believe the rational treatment of an abscessed ear can be put in one word, drainage, the earlier the better. A prolonged suppuration process in the ear must necessarily produce similar changes in the lining epithelium and chain of ossicles to those seen in chronic nasal sinus disease (hyperemia, swelling and even polypoid degeneration). These are to be feared far more than changes in the drum membrane produced by a clean incision or even by repeated incisions.

In the presuppurative stage when the drum membrane is depressed and dull with beginning exudation in the middle ear with hyperemia at margins and along malleus handle, it is possible to abort the process by inflation. In children of 3 or 4 years a pipette of cold water in the pharynx will cause a child to swallow when inflation can generally be accomplished. If the tube be too greatly swollen to allow the passage of air, paracentesis will probably be indicated in a few hours. I feel that as soon as a definite bulging can be detected an incision is

indicated even in those rare cases where the pain or fever are absent.

Occasionally a case is seen where the middle ear is filled with turbid serum with a slight fullness of the drum membrane. Such cases, when drained, generally make a very quick recovery, in contrast to the case where procrastination has been the principal treatment. When a child has had a suppuration process in one ear for three or four days and a beginning suppuration in the other ear, paracentesis of both often cures the last infection earlier than the one of longer duration. Such cases teach us that early drainage is by far the most important element in treatment.

Harold A. Fletcher, San Francisco—In discussing the above problem it is necessary, first to understand that we are discussing only acute otitis media, and secondly, to differentiate between the two main types of acute otitis media, namely, (1) acute serous catarrh and (2) purulent otitis media.

In acute serous catarrh we are dealing with a noninfectious congestion of the membranes of the eustachian tube middle ear and probably mastoid, with the formation of a fluid like a transudate in the middle ear cavity.

In otitis media acute purulent we are dealing with an infection of the membrane lining the middle ear and mastoid, with a formation of pus in these cavities, which is unable to be drained through the swollen eustachian tube.

There is a period in some cases of purulent otitis media in which the first twelve or twenty-four hours show findings similar to acute serous catarrh, namely, slight mild pain, moderate injection of the drum, and even a very slight bulging. The treatment during this time of either condition might be mild inflation by use of the Pollitzer bag, which may abort the acute purulent type and might clear up the acute serous type without paracentesis.

In by far the majority of cases of acute purulent otitis media the onset is far more rapid with general symptoms of infection and locally rapid thickening and infiltration of the drum and rapid formation of seropurulent fluid under pressure, causing pain and a bulging of the drum, the above taking place in the matter of a few hours.

The moment the diagnosis is made that we are dealing with an acute purulent otitis media with formation of infected material under pressure in the middle ear, as evidenced by a bulging of the drum, a paracentesis should be made.

The reasons for this are sometimes not wholly understood. The purpose is not only to drain out the infected discharge to keep it from being pushed back into the mastoid process, but also—and this is of the greatest importance—to relieve the pressure on the inflamed membrane surfaces themselves. This

pressure, in a closed cavity on infected, swollen and even ulcerated surfaces over the labyrinth, the sinus and the floor of the brain is one of the most dangerous elements. No one can tell when these ulcerations are going to become deeper and cause serious complications.

The only chance for the re-establishment of circulation to care for these lesions is to release this pressure. The sooner this is done by paracentesis the better. There can be no excuse for procrastination in opening an ear drum. Procrastination should come under the head of "prayerful treatment," and has been, and will in time become more so, the cause of malpractice suits.

Another reason for early paracentesis is that delay often means the organization of the products of infection in the ear with adhesions and tendency to deafness far greater than when the drum is opened.

Every physician, and particularly every pediatrician, who is without the services of an otologist should be able to tell whether the patient has a purulent otitis or not, and when in doubt he should be able to perform the simple operation of paracentesis immediately.

Karl F. Pelkan, San Jose, California—With infants and children, acute otitis media is an ever present possibility; it accompanies chiefly the upper respiratory infections and the exanthemata, but may occur secondary to any infectious disease. Its diagnosis, even in the very young, offers no difficulty. Fever is the most constant symptom. In infants pain is absent in a certain number of cases, or, because of inability to localize, may be shown merely by general irritability and sleeplessness. The otoscopic examination, which should be carried out routinely in all febrile disturbances in childhood, quickly settles the point.

The principal difficulty experienced in practice arises from uncertainty of the proper therapy. Opinions vary. There are those who demand early and, if necessary, repeated incision of every ear drum showing hyperemia or giving evidence of pain however slight; others prefer to treat expectantly to the last possible minute and rather take the risk of complications than perform what is deemed a premature and unnecessary paracentesis. There are, no doubt, some sound theoretical reasons on both sides. The frequent, unnecessary incision and consequent scarring of a vibrating membrane, the function of which depends on its delicate structural peculiarities, can do no good. The continued high fever, pain and danger of complications of an inner ear filled with pus is still less desirable.

I believe that a rational middle way can be found at the bedside which takes into consideration both contingencies. It is of necessity based chiefly upon the recognition of the state of things at the membrane and in the inner ear. Chiefly, I said, for the clinical symptoms of temperature, and pain must also be taken into consideration. The physician should be able to differentiate three simple conditions: he must be acquainted with the appearance of the normal ear drum, he must know the appearance of an infected ear drum without pus behind it, and

he must be able to recognize a distended drum. Differentiation of these conditions is aided by removal of all cerumen from the external canal and by using as far as possible the same magnification of otoscope and the same size of speculum.

Otitis media should be treated medically unless paracentesis is very clearly indicated. The medical treatment consists of increasing elimination by bowels and skin, and the local application of an analgesic such as 10 per cent carbolyzed glycerin and hot compresses. The ear is examined daily for evidences of bulging. Most cases of middle ear infection in infants and children subside under this régime. I am not convinced that early incision of all infected ear drums lessens the danger of mastoiditis or other complications.

Paracentesis seems to me to be indicated:

1. When definite bulging of the membrane is present.
2. When questionable bulging, accompanied by severe pain and fever, does not yield in two or three days to medical treatment, or when such an ear cannot be observed daily.
3. When sudden stopping of discharge from an ear is followed by increased pain and temperature.
4. When otherwise unexplained cerebral symptoms or mastoid pains occur in the presence of a reddened ear drum.

It is my opinion that the majority of cases of otitis media in which paracentesis is performed would subside under expectant treatment. There is now a tendency among pediatricians to avoid paracentesis in infants unless very urgently indicated, since spontaneous rupture, which occasionally occurs under the conservative plan of treatment, apparently heals as rapidly and with the same final result as an incised drum.

Donald Cass, Los Angeles—Treatment of otitis media, when the diagnosis is established, depends entirely on whether or not the drainage from the middle ear through the eustachian canal is maintained at all or not. The only indication for paracentesis is in case the drainage through the natural channel is blocked, usually due to swelling of the membrane lining the eustachian canal. This is shown in the physical examination by bulging of the ear drum, which can be seen readily on otoscopic examination.

Treatment of otitis media is either expectant or radical. In cases where the otitis is merely an extension of a coexisting inflammatory process in the nose and pharynx, and the eustachian canal is not completely included, treatment is expectant, that is, by glycerin and carbolic drops in the ear with hot compresses and treatment of general condition, and nasopharyngeal process. When there is a reddening of the drum and a dulling of the surface it is my custom to see the patient at least twice daily and at the first indication of bulging to make an incision through the drum.

Routine examination of children in whom there is a nasopharyngeal inflammatory process present shows that a great many children who do not complain of pain in the ears, and whose temperature is

fairly normal, show a reddening of the ear drum and a lack of light reflection on the glossy surface. These cases are not subjects for paracentesis unless there is a definite bulging.

There seems to be a great apprehension among doctors who do not see a great many cases of inflamed middle ears that brain abscess and other very serious complications are easy to stumble into, but it has not been my experience, with very small children especially, spontaneous rupture of the drum occurring at an early date, automatically providing drainage for the accumulated pus in the middle ear. If careful otoscopic examination had been made in those cases bulging would have been seen prior to rupture.

When there is some slight edema about the ear over the mastoid process, together with large cervical glands and a discharge which becomes less and more at various times, when the temperature is more or less septic, indicating that drainage is not sufficient through an existing perforation of the drum, I believe it good surgery to enlarge the pre-existing hole.

Treatment by irrigation, in my estimation, is not a very good idea unless there is some active indication for it, such as infection by bacillus pyocyaneus. Gently remove coagulated discharge from the external canal or promote drainage by removing other débris, blood, etc., collected in the external canal. Irrigation itself does not reach through the ear drum into the middle ear. If it did I believe it would be deleterious to the structure of the ear and possibly damaging, and as all that is to be desired is adequate drainage of the middle-ear chamber, I believe this could be obtained best by a careful cleansing of the external canal daily and the administration of hot compresses.

In the case of otitis media where the ear has discharged freely and still the patient does not seem to be improving, it has been my practice to remove the adenoid tissue without any anesthetic in very small children, merely using the adenotome quickly, and in most cases the patients do not complain that it has been a very painful operation. If it is needed a small amount of anesthetic can be used, but I have found that the shock is very insignificant and the patient greatly benefited by merely removing the adenoid tissue and giving the eustachian orifices a chance to open up and improve the drainage from the middle ear through the normal channels into the nasopharynx. This, however, is a rather radical procedure and, while I practice it on some cases, I do not advocate it for general use.

Intellectual Learning—Learning things because of curiosity without reference to the use of that knowledge is really one of the largest normal activities of man. Knowledge-getting because of curiosity is analogous to food-getting because of hunger. One wants the food when hungry whether he knows anything about its functional value or not. The hunger is nature's way of ascribing value to things that the man needs. Equally, the healthy mind wants to know the things that appeal to the mental appetite without care at the time as to their practical application. This knowledge-hunger is nature's method of ascribing value to things that the man needs—when he is too immature or too stupid to know what he needs. Such strong and continuing instincts impel only to things that are on the whole useful and necessary.—Bobbitt: *The Curriculum*.

EDITORIALS

RECENT LEGISLATION—PROSPECTIVE AND ATTAINED

The California legislature of the year 1927 convened in January and closed its sessions toward the end of April. Following the precedent established by previous legislatures, it considered several thousand proposed additions to the statutes designed for the better guidance of the citizens of California; and actually enacted about two thousand of the measures. These were all passed to the Governor of the state, he to determine which he would have become laws in our civil and penal codes through the endorsement of his signature; and which he would veto either directly, or through nonsignature (pocket-veto).

The members of the medical profession, as law-abiding citizens, had only a casual interest in the great majority of these proposed laws. Such of the measures as had to do with public health interest—and that term is here used in its broad application to all measures affecting the health and associated interests of either the laity or the medical profession—should be of interest to physicians, and particularly to the members of the California Medical Association.

At the time of this writing, Governor Young is still giving many of the proposed laws which were submitted to him his consideration. Mention will be here made of some of the proposed statutes, the fate of which is now known.

Comment should first be made of the fact that this year, through action of the Council, witnessed a change in the procedure of the Association toward prospective legislation. A decade has practically passed since the state health insurance initiative was before the voters of California. That proposed measure received much attention in professional and lay circles for practically a year or more before its appearance on the voting-sheets. Almost at the last moment, in an eleventh hour effort, as it were, it was decided that the major work involved in the fight against that proposed legislation should be given over to a newly formed organization, composed largely of members of the medical profession and known as the League for the Conservation of Public Health.

That society made an heroic fight and aided greatly in defeating the health insurance initiative. In appreciation of its effective work at that time done, the legislative program of our Association was largely left in the hands of the colleagues who were also identified with the League.

This last year, however, the Council decided to return to its old plan of a separate legislative committee of the California Medical Association. Such a committee, consisting of Dr. Harlan Shoemaker,

chairman, of Los Angeles, and Drs. Joseph Catton, San Francisco; Michael Creamer, Los Angeles; Junius B. Harris, Sacramento; and Robert V. Day, Los Angeles, was duly appointed, and, much as happened ten years ago, it also went into action in what was almost an eleventh hour campaign.

It is gratifying to be able to give credit to this committee for its efficient service. It performed the work in the same splendid fashion as had been done by the League's committees during the recent years.

The four thousand members of the California Medical Association should be interested to know somewhat more in detail concerning some of the legislative problems which confronted the Committee on Legislation. For that purpose quotations will be made from some recent correspondence with the chairman of the committee. Doctor Shoemaker, the chairman, among other things, stated:

There were introduced into the Senate fifty-seven bills and into the Assembly sixty bills that affected the practice of medicine in the state of California. Some of these bills were introduced by the State Board of Medical Examiners and the State Board of Pharmacy, some by welfare organizations outside the state of California. A great number were introduced by various cults and some by civic organizations. The bills affecting the practice of medicine, introduced by the State Board of Medical Examiners, were reviewed by the Legislative Committee and endorsed. They were represented through Dr. Charles B. Pinkham, secretary of the board, and Dr. Junius B. Harris of Sacramento and Mr. Frank M. Smith of Los Angeles. These bills were promptly passed and very promptly signed by the Honorable C. C. Young, Governor of the state of California. You must appreciate that time is the essence of all contracts; in other words, the bills were passed and signed early in the calendar of the legislature.

A few bills were passed and signed by Governor Young, that had met defeat under Governor Richardson's administration, one in particular making it a misdemeanor to use the title "M. D.," unless so licensed by the state of California.

The Pure Milk Law, Assembly Bill 306, which practically eliminates raw milk in the state of California but does not interfere with certified milk, which is also raw milk, was passed.

The annual tax for doctors' certificates in the state of California, which was reduced to \$1 instead of \$2, was passed and signed.

Some bills were amended. The Cosmetology Bill was amended to exclude such drugs as carbolic acid and bichloride of mercury. The Pharmacy Bill, requiring that every owner of a drug store must be a licensed pharmacist and that drugs could only be dispensed by a licensed pharmacist was amended. This would have worked a great hardship on the country doctors.

Senate Bill 342, making failure to report defective hearing a misdemeanor, was robbed of its sting.

Assembly Bill 1261, giving the naturopaths the license to practice medicine and surgery and also making a separate board, which for the price of \$25 by anyone so applying would have allowed such an individual to practice medicine and surgery in the state of California, was defeated.

Assembly Bill 1214, taking the subject of Orthodontia out of the dental schools and placing it in the medical schools, adding to the overcrowded condition of the medical schools and crippling the dental schools, was defeated.

Senate Bill 851, and Assembly Bill 773, known as the optometry bills, were defeated.

The County Hospital Bill, opening all county hospitals and hospitals where they have Civil Service, in other

words making them accessible to all methods of practice without supervision, and without regard to adequate preliminary education and professional training, as a prerequisite for this right, was defeated.

The Crippled Children's Bill was greatly changed, taking it out of the hands of the welfare division of the state of California and placing it where it should be, in the hands of the State Board of Health.

Senate Bill 60, that came close to the hearts of doctors practicing industrial medicine, passed the Senate with one dissenting vote, but was defeated in committee of the Assembly. Senate Bill 60 allowed the cults to practice industrial medicine, and was very properly defeated.

The members of our Committee on Legislation have not been backward in giving to the officers and members of the component county medical societies much of the credit for the successful results above but briefly enumerated. The thanks of the Association are extended to all who aided in the important work which confronted organized medicine. The end-results attained were worthy of the energy and time given by these many loyal colleagues. Their generous aid should stimulate all members of the medical profession to take a keener interest in these matters in the future.

Let no members of the California Medical Association feel, however, that the battle has been permanently won. Such is not the case. Today, as never before, the scientific and economic standards of organized medicine are menaced from many directions. Sometimes these antagonistic forces emanate from well-meaning but not far-seeing individuals and organizations. Not infrequently they have their origin with those who stand for low standards of professional education and training, or with persons of commercialistic or baser motives.

No matter from what source coming, if the efforts would act in detrimental fashion to the highest and best public health interests they should and will be opposed by organized medicine. To that viewpoint and line of action we are all committed, and to that policy we intend to remain firm.

VARIOLA STATISTICS FOR 1926

In this day of enlightenment, and of a civilization of which the Caucasian race is everywhere seemingly most proud, it would be logical to conclude that a scientific fact would commend itself to practically all those persons who had intelligence sufficient to understand the basic hypotheses having to do with the fad in question, and breadth of vision to comprehend the statistical and other evidence having to do therewith.

Jenner in 1796 proved the efficacy of cowpox inoculation, through vaccination, and made it possible for the world to free itself from one of its most dreaded scourges. The carefully compiled and accurate statistics of European and American armies, both in times of peace and war, since the time of Jenner, should convince the most skeptical of the value of vaccination as a preventive of smallpox.

Many persons, however, probably as a result of theories of their own, or which they have accepted from others, seem somewhat reluctant to give the experience figures of vaccination which have accumulated since 1796, that value which practically all well-trained physicians attach thereto.

Osler states that for the United States in 1904,

there were 25,106 cases of smallpox. In 1926 the smallpox morbidity totaled 41,643 cases in our own country.

Among the states, Indiana led with 3571 cases; then came Florida with 2890 cases, and third on the list was our own state of California with 2794 cases. Washington followed with 2413 cases.

Rhode Island and Vermont, however, where strict vaccination laws are enforced, were entirely free of the disease throughout the entire year.

The nearness of California to old Mexico, where vaccination is not thoroughly carried out, and the large influx of Mexicans into southern California, means constantly recurring opportunities for variola epidemics, if a sufficiently large population of unvaccinated persons contact with such carriers.

It sometimes seems a pity that those who conjure up all types of dreadful blood diseases as a result of vaccination, and who hold that vaccination is a remedy worse than the smallpox itself, could not get together and submit themselves to variola infection. The experiment would demand, of course, that such individuals had never been vaccinated. The thought comes to us from time to time that in the long run it might be well if the compulsory vaccination laws were abrogated, physicians advising friends and clients to be vaccinated, and permitting those who hold vaccination to be undesirable and detrimental, to try out their theory. The reappearance of pock-marked faces in our midst might help bring us back to earth, and prove again that diseases such as smallpox are not mere figments of the imagination.

CERTIFIED MILK

A few years ago a card for scoring a dairy was practically unknown. The writer aided in formulating the forms first used by the Public Health Committee of the Los Angeles County Medical Association. He remembers some of the excursions on Sundays, when these volunteer inspections by the late Luther M. Powers and the late Stanley P. Black, health officers of Los Angeles and Pasadena, in company with Dr. Fitch C. E. Mattison and himself, took place. He still visualizes the members of the committee leaving their auto, to chase cows out of the head-waters of the Los Angeles River. He recalls their consideration of their own sketches showing how milk houses for the cooling of milk could be economically constructed. Following those early efforts, that committee formed the Certified Milk Commission of the Los Angeles County Medical Association.

Experiences such as these were had by other certified milk commissions throughout the state. The conjoint efforts of these committees from the county medical societies played a large part in educating dairy men throughout California in modern methods of sanitary handling of milk.

* * *

The above comments are made as an introduction to the newspaper dispatch from Washington, D. C., where the annual contest of milk samples

from certified dairies, under the auspices of the Association of American Milk Commissions recently took place. The fact that California has won these prizes for the highest grade milk produced, for four years, and that this production has been in good part due to the members of the medical profession who are on the certified milk commissions of our state, should be a matter in which we all can take pride, and seems worthy of mention.

The clipping referred to reads as follows:

Competing against samples of milk from the foremost dairies in the United States, Adohr certified milk, a Los Angeles product, has been awarded the highest score in the national contest for the fourth successive year, according to an announcement made by the American Association of Medical Milk Commissions at Washington, D. C.

With the products of thirty-three dairies being scored by the officials, the high record of 99.5 per cent carried off first honors in this year's contest. Samples of Adohr milk were expressed to Washington ten days ago, and two days were spent by the judges in examining the entries.

Attention of dairy experts throughout the world is being directed to the milk supply of Los Angeles by its consistent winning of national milk-scoring contests. With the exception of the 1924 contest, when California milks were barred from shipment because of the outbreak of hoof and mouth infection, every national contest beginning with 1923 has been won by entries from Adohr Stock Farms.

THE A. M. A. AND THE VOLSTEAD ACT

Without in any manner wishing to engage in a controversy as to whether alcohol is or is not a medicinal element of great value, the Associated Press dispatch, giving the action of the House of Delegates of the American Medical Association should be of interest to members of the medical profession.

The principle laid down that "no law can establish a scientific fact," is one that might well be taken to heart not only by adherents of alcoholic prohibition, but by those who hold to antivaccination, antidiphtheretic serum and similar viewpoints, and who often exert strenuous efforts to bring their own prejudiced slant on scientific matters such as the foregoing into compulsory legislation for all other citizens.

The expression of opinion of the House of Delegates of the A. M. A. in support of the important principle involved is much to its credit. The dispatch to which reference was made follows:

Acting on the expressed principle that no law can establish a scientific fact, the House of Delegates of the American Medical Association voted today to prepare for submission to Congress a bill designed to remove present legal restrictions on the amount of whisky a physician may prescribe for his patients.

The proposition was discussed in executive session and the vote was taken after two hours of debate, which produced a proviso that the proposed measure be framed in cooperation with prohibition enforcement authorities. A proposal that the Association send to its members a questionnaire on the medical value of alcoholic liquors was referred to the board of trustees.

A statement issued at the close of the meeting said the vote was unanimous and declared it the feeling of the organization that "legislative bodies composed of laymen should not enact restrictive laws regulating the administration of any therapeutic agent by physicians legally qualified to practice medicine."

MEDICINE TODAY

Current comment on medical progress, reviews of selected books and periodic literature, by contributing editors.

Clinical Pathology, Bacteriology, and Parasitology

Chronic Carbon Monoxide Poisoning—The dangers from carbon monoxide poisoning gas are becoming quite widely known and appreciated. The Los Angeles *Times* under date of March 13 carried a short article stating that a policeman directing traffic on one of the congested corners in the center of Los Angeles was so affected by the gases inhaled during his hours on duty that he appeared in a somewhat intoxicated condition at the end of the day.

Dr. H. G. Beck of Baltimore, in a paper recently read before the American College of Physicians in Cleveland, gave some interesting facts. He stated that carbon monoxide is nontoxic, but that the danger comes from its close affinity for hemoglobin. This affinity, however, has been greatly overemphasized, for the combination can be broken up rather easily. It is odorless, and is poisonous in a percentage as low as 0.05 per cent when inhaled over a long period of time. An exposure to 0.4 per cent causes definite symptoms in one hour's time. The exhaust from automobiles averages 6 per cent carbon monoxide; and an automobile running in a closed garage will create a dangerous atmosphere in three minutes' time.

Chronic poisoning results in an increased red cell count running from six to nine million, with 95 to 125 per cent hemoglobin, and an occasional eosinophilia. The subjective symptoms are dizziness, headache, blurring of vision, weakness and palpitation. Usually the symptoms disappear quite rapidly upon removal from the influence of the gas.

Experiments have shown that a patrolman at the end of an eight-hour duty may show as high as 30 per cent saturation with carbon monoxide.

Another quite interesting fact that is more frequently overlooked, is the possibility of poisoning by means of the common habit of smoking. Doctor Beck stated that analyses of the blood of smokers who inhale show a very definite amount of absorption in the blood stream amounting to from 6 to 22 per cent saturation. If this work can be confirmed by others, much experimental work must still be done, to accurately determine to what extent exposure to small amounts of carbon monoxide continuously, or periodically over long periods of time, may result in the development of disease, or in shortening human life.

H. E. BUTKA,
Los Angeles.

Obstetrics and Gynecology

Sedimentation Test in Gynecology—It has long been known that if blood is treated with an anticoagulant and allowed to stand, a separation of two constituents occurs, namely, serum and red

blood cells. It has also been recognized that this sedimentation occurred at a definite rate and represents a nonspecific biologic reaction indicating the suspension stability of erythrocytes in noncoagulable blood. In the presence of infection this sedimentation occurs more rapidly, and this variation has been recently employed as an aid to gynecologic diagnosis. The simplicity of the test is one of its recommendations.

Technique—Hard glass tubes 5 mm. in diameter and 6.5 cm. long with a capacity of 1 cc. are used. The tubes are marked at the 1 cc. level and at points 6, 12, 18, and 24 mm. respectively below. Eight-tenths cc. of blood are drawn into a Luer syringe which contains .2 cc. of .5 per cent sodium citrate solution. The mixture is thoroughly shaken and transferred to the sedimentation tubes. The time required for the sedimented red blood cells to reach the 18 mm. mark is noted. Three hours is accepted as within normal limits. A sedimentation time below two hours is considered too rapid and distinctly pathological.

The application of this test in obstetrical practice has been of interest. In the early weeks of pregnancy there has been no marked variation in the sedimentation time, and the test therefore is of no value in the diagnosis at this period. After the fourth month there is a rapid sedimentation which increases with the advance of pregnancy. During the third or fourth week of the puerperium the time returns to the normal limits. In the presence of threatened abortion, and following uncomplicated abortions, the time is reduced to an hour.

With pelvic infection the rate of sedimentation varies directly with the virulence of the infection and the extent of the pathologic involvement. Sedimentation with severe infection may be completed within a few minutes and is closely paralleled by the leukocyte count and temperature curve. However, the diminished sedimentation time frequently occurs before there is any elevation of temperature or leukocytosis and may persist for some time after the latter two have become normal. It may, therefore, be regarded as a more delicate prognostic index as to the proper time for surgical therapy of pelvic infections. The modern conception of the treatment of these pathologic processes demands the recognition of the value of tissue cell proliferation, formation of antibodies and the natural resistance of the individual in effecting a cure, and emphasizes the vital importance of determining the proper time for surgical intervention.

Uncomplicated fibroids in the absence of fever or leukocytes frequently show a diminished sedimentation time which agrees with our knowledge of latent or quiescent infections which are so commonly associated with this tumor formation. Myomata complicated by anemia, and degenerations, as do ovarian tumors, show marked acceleration of the sedimentation time.

Carcinoma of the uterus, even though the tem-

perature and leukocytes are normal invariably show a rapid sedimentation.

In the treatment of latent streptococci pelvic infections the test is of very real value. The streptococci may remain alive, yet quiescent, in pelvic cellular tissue for many years. They readily become activated and, freed from their surrounding barriers by surgical trauma, may pass into the blood stream. In the presence of a postabortal uterine infection, even though the temperature and leukocytes are normal, an appreciation of a rapid sedimentation time, will prevent us doing an unnecessary curetage and breaking down nature's line of defense.

The sedimentation test is of real value in the diagnosis of infection, and when correlated with the history, physical signs, temperature and leukocyte count, has genuine prognostic significance.

ALICE F. MAXWELL,
San Francisco.

Disease Prevention

Pathogenicity of Brucella Mellitensis, Variety Abortus, for Human Beings—There has been doubt in the minds of many investigators as to whether *Brucella mellitensis*, variety abortus (the cause of infectious abortion in cattle), may produce infection of human beings. Alice Evans¹ has shown that this organism is very closely related to the one which causes Malta fever, which is highly infectious for man, and many other workers have confirmed her observations. Meyer and Fleischer,² however, found that the abortus variety is very much less virulent for monkeys and other laboratory animals than is the true *mellitensis*.

During the past three years instances have been reported in various parts of the United States in which human beings who were suffering from obscure fevers were found to have living *Brucella abortus* in the urine, or in the blood stream, or to have high titres of specific agglutinins for *Brucella abortus* in the blood. Evans³ has recently assembled twenty cases from the American literature since 1924, and refers to a number of other cases which were reported to her by personal communication. Similar cases have been reported in South Africa, Italy, Palestine, and the Dutch East Indies; and in practically all instances there is history that the patients drank raw milk from herds which were infected with infectious abortion, or handled infected cattle or hogs.

The evidence is strong, therefore, that human beings may become infected with *Brucella mellitensis*, variety abortus. The course of the disease in man is febrile, of the undulant fever type like Malta fever, but appears to be less severe than in Malta fever. It has been mistaken for typhoid fever, meli-

ary tuberculosis and other prolonged, febrile diseases, and is especially liable to be confused with tularemia.

These observations are important because of the high incidence of infectious abortion among dairy herds in many parts of the country. Experiments have shown that the organism may be recovered with little difficulty from the milk of a large proportion of infected cows, and there can be no doubt that varying numbers of the bacteria may be ingested with raw milk.

It is unfortunate that certain interested industrial organizations are making use of these facts in propaganda against certified milk, but it should be remembered that this is being done for business reasons. The certified dairies in the past have adopted measures to control known dangers from raw milk, and it is to be expected that they will take the necessary precautions to control infectious abortion. Economically, it pays to control infectious abortion in dairy herds, whether they are certified or not, and experience has shown that this can be done by careful selection of new stock, care of the calves and young cattle, and vaccination.

The available evidence indicates that the danger of infecting human beings, while real, is probably not great; but further observation is necessary before we can be sure of the actual degree of danger. However, it can be said that there is no emergency which necessitates placing a ban upon all raw milk and that our present knowledge of infectious abortion does not justify the condemnation of certified milk.

ERNEST C. DICKSON,
San Francisco.

Neuropsychiatry

Physical Constitution and Personality—Even before Gall attempted to read personal traits in the projections and depressions of human cranium, there existed considerable interest in the relation of body construction type and the personal reaction type. Recently Kretschmer discussed the topic under the title "*Körperbau und Character*" (English by Sprott, "*Physique and Character*"). Lately Wertheimer and Hesketh, after a brief review of related work, further utilized anthropometric data, especially a simple anthropometric index, in the study of "*The Significance of the Physical Constitution in Mental Diseases*." They used Kretschmer's main division of body types: (a) the pyknic, associated with the open (extroverted, social, syntropic), reaction type and present in about 60 per cent of manic-depressive patients; (b) the asthenic and athletic body types, associated with the shut-in (introverted, schizoid, idiotropic), reaction type, which, especially the asthenic, is commonly found in schizophrenic (dementia precox) patients. They pointed out variations in findings at different age levels; also they admitted many transitional and contrasting cases.

The physician in general practice naturally asks what is the net result of these findings, when applied

1. Evans, Alice C.: Jour. Infect. Dis., 1918, 22:580.

2. Meyer, K. F., and Fleischer, E. C.: Proc. Soc. Exper. Biol. and Med., 1919, 16:152; also Trans. Amer. Ped. Soc., 1920, 32:141.

3. Evans, Alice C.: Jour. Amer. Med. Assn., 1927, 88:630.

to the diagnosis, prognosis and treatment of his patients. From the point of view of clinical psychiatry, the following answer appears justified:

1. There undoubtedly exists certain correlation between body types and personality. The presence of a strongly deviating body type by no means always spells the approach of mental disaster; however, as Adolf Meyer might say, it suggests "an increased liability" in certain directions. Fortunately in diagnosis we need not depend on these data alone. It is generally possible during preschool age, certainly before puberty, to diagnose these and other deviations in reaction type by means of psychiatric tests and observation of behavior. Naturally the usual kind of test of intelligence is of little aid since the essential problem is to ascertain the motives and mechanism of reactions, rather than results in terms of quantity and accuracy.

2. From the point of view of prognosis and therapy, it is important that the many forces we sum up under the title of "environment," exercise an influence upon the development of the reaction type. More than that, they are capable to substantially enhance or impair aggressive, defensive and stabilizing capacities of an individual. Then also the environment is not often so fixed as to be incapable of moderation, hence the person carrying "an increased liability" need not be overtaxed beyond capacity to endure.

To utilize these opportunities is at once the obligation and the promise of the present-day psychiatry; which, not forgetting the already stricken, primarily must aim at prevention of the first break. However, it is the physician in first contact with the child or youth, upon whom generally rests the responsibility for early diagnosis of such deviations.

About one-half of first admissions to state hospitals belongs to the two main groups mentioned: the manic-depressive and the schizophrenic. Some of these disasters no present-day effort could have saved; others, entering the gate, undoubtedly might have continued more or less efficient and happy members of human society had they been given early aid to maintain sufficient adjustment to their particular reality.

V. H. PODSTATA,
Livermore.

Orthopedics

Backaches—What They Indicate—The routine examination of the back should be included in all physical examinations where backache is a symptom. This part of the thorough study of the average patient has not infrequently been neglected. Irregulars at times have prospered because of such neglect in otherwise thorough examinations. There is nothing essentially mysterious in back problems, though exact diagnosis is difficult and sometimes impossible.

The following is a brief outline useful in routine physical examination of the back:

1. Bare the whole back.
2. Inspect it in the standing, sitting, and lying positions.
3. Note variations of the normal curves both antero-posteriorly and laterally.
4. Note the attitude of the head, the level of the shoulders and pelvis.
5. Put the various segments of the spine through their

active range of movement and note the limitations and subjective complaints in each.

6. Give attention to the musculature, noting particularly muscle spasm and muscle tone.

7. Palpate the various segments (standing, sitting, and lying) throughout the entire spine; but particularly of the area of complaint, noting muscle spasm and points of maximum tenderness.

8. Straight leg raising in the supine position gives important information regarding sacrolumbar and sacroiliac disturbances.

9. Note the stance and the feet. They give the clue to many postural backaches.

10. Study the segment involved with both antero-posterior and lateral x-ray films.

The variations from the normal, and the localization of the symptoms found in such an examination, in conjunction with the history, in a large percentage of cases will give data on which to base a reasonable diagnostic conclusion.

From an orthopedic standpoint, backaches may be due to trauma, static defects, arthritis or destructive bony lesions. Frequently one, two or three of these complicate each other. All the various lesions that one finds in joints elsewhere may be found in the joints of the spine—strain, sprain, sprain fracture, minor and gross fracture. The back in this regard differs from an extremity only in that the nerve tracts are more intimately associated, and the treatment by rest and protection is obtained with more difficulty.

Static, back strain, backaches due to postural, developmental or muscular defects, are almost as common as eyestrain headaches. The headache from eyestrain differs essentially in no way from the backache due to back strain, except in location.

The arthritic backache calls for a consideration of all the other complicating problems, as well as a study of the general bodily factors involved in arthritis. Arthritis displays itself most often at those points of the body which are most subject to chronic trauma or strain.

In treatment of the orthopedic backache, keep in mind that the injured joint needs rest and protection; that the strained joint needs support, and that the arthritic joint responds most readily to both rest and protection, plus a removal of the causal foci.

H. W. SPIERS,
Los Angeles.

Orthopedics

Progress in the Study of Arthritis—Under this caption appears an editorial in a recent number of the *Journal of the American Medical Association*. The writer comments on the work of Cecil and Archer, and of Pemberton and his co-workers, and considers that these "more recent contributions advance our knowledge."¹ In what respect the writer neglects to say.

There are two ways of advancing our knowledge in medicine. The first method is to develop an idea from the inner consciousness, and then to accumulate facts to support it. This is rapid, spectacular, often temporarily successful and often profitable. The cults follow it exclusively. It leads along pleasant paths to oblivion. The second method is by patient investigation to assemble definite facts, and then to reason to a conclusion. It is slow, laborious,

1. J. A. M. A., 1927, Vol. 88, p. 651, February 26, 1927.

and as a rule not remunerative. For centuries the medical profession followed the first method, but in recent years it has adopted the second, in almost everything except diseases of the bones and joints. There seems to be something about the study of these organs which causes one to lay aside reason and to adopt speculation and mystery. The typical orthopedic surgeon lives in a different atmosphere from his fellows. He deals with mysterious things which they cannot understand. He speaks in hushed tones of "function" as if he invented it, of impingements, of posture. As in Eddyism, so in Orthopedic Surgery (in capitals, be it noted) the true devotee must turn to the same shrine in the east when he worships.

If one will read earlier writings one will find talk of a rheum (something floating or flowing) as the cause of disease. Hence rheumatism. This changes to a habitus, a diathesis, a dyscrasia. The more it changes the more it is the same. This diathesis, uric acid or other, causes inflammation in joints. How it causes the inflammation is immaterial. The diathesis changes again to faulty metabolism. Arthritis is caused by faulty metabolism. Health is metabolic equilibrium, metabolic balance. Disease is faulty metabolism. Arthritis then is due to disease. Elementary.

This arthritic habit, this diathesis, this faulty metabolism: to what is it due? Many answers have been made to this, but one is as old as history, and perennially new, or decked out in new raiment of words—some error in diet, something one eats or fails to eat or drink—tea, coffee, meat, vegetables, alcohol. The pendulum swings back and forth on carbohydrates and proteins. Fifty years ago the Salisbury diet of rare beef and hot water held the stage. Later meat was taboo, and one fed arthritis patients on a meat-free diet. Of recent years the pendulum swings back, and we speak of carbohydrate tolerance.

Of classifications of arthritis there is no end. Some of them are so complicated that one wonders if their authors can remember them overnight. Some investigators pin their faith to clinical points, others to anatomical, others to etiological. Most combine the three in their classifications. To the student, the remarkable nomenclature is a bar to knowledge. Hypertrophic to one is degenerative to another; atrophic is proliferative or rheumatoid or infectious. Progress in the study of arthritis comes to consist in inventing new names for old, and devising more elaborate classifications. Meanwhile our patients go through the same old routine, diet, salicylates, baths, physical therapy, climate. At times the main thing seems, under some plausible pretext, to get them into someone else's hands.

Truly, as the *Journal of the American Medical Association* says: "The study of the arthropathies is far from complete." How then shall we go about the task of completing it? There is but one way here, as in diseases of the other organs of the body—patient investigation in the laboratory, and correlation of our findings with those obtained in the clinic. One cannot treat a disease intelligently until one knows exactly what it is. Most investigators of arthritis seem to forget this. Their writings betray

a painful ignorance of the morbid anatomy of the disease they essay to treat. They exhibit a plethora of theory, and a paucity of facts.

LEONARD W. ELY,
San Francisco.

Pediatrics

Hemotherapy in Pediatrics—The use of whole blood in the treatment of certain diseased conditions is not new. In 1862 some experimental work was done with whole blood and blood serum intraperitoneally, but it was not until 1875 and the following nine years that clinical application was made of this mode of therapy. This work was reported in Italian and German literature.

For a number of years following, no especial attention was given to hemotherapy until it was discovered that the injection of human blood would stop bleeding as met with in some new-born infants. In these infants, it was necessary to give the blood intravenously and this required the services of surgeons especially trained. Later, it was found that if whole human blood or serum was injected subcutaneously, the same results would follow.

Pediatricists all over the world then began treating various diseases with whole blood injections. The results were very surprising. Erysipelas, for example, which in the new-born always had a 100 per cent mortality, responded to this whole blood therapy, with cures in many instances. It was tried in various septicemias with good results. When infants suffering from malnutrition were given 20 to 30 cc. of whole human blood subcutaneously they seemed to take a new lease on life. In various anemic conditions the use of whole blood is a stimulus to the blood-forming tissues.¹

The question of supplying larger amounts of blood, however, was still a problem, particularly when the subject was an infant or a very young child with veins which were difficult to locate.

In 1923 Siperstein and Sansby^{2 3 4} reported some experimental, and later clinical, work on intraperitoneal injections of whole citrated blood. They found that this method was as valuable as intravenous administration; and that "intraperitoneal transfusion of freshly citrated blood acts as a true transfusion and not as the absorption of nutrient material."²

In intraperitoneal transfusion blood and fluids are supplied. The red blood cells are absorbed unchanged. However, in this method, the bone marrow is inhibited in its production of red blood cells probably because the work of the blood is taken up by that injected and there is no stimulus of blood-forming tissues. The citrated solution is such that when diluted the blood has from 0.2 to 0.25 per

1. Taylor-Rood: The Fate of Subcutaneously Injected Red Blood Cells, *American Journal Diseases of Children*, 20 : 337, October, 1920.

2. Siperstein, David M., and Sansby, J. Martin: Intraperitoneal Transfusion with Citrated Blood—an experimental study, *American Journal Diseases of Children* 25 : 107, February, 1923.

3. Siperstein, David M.: Intraperitoneal Transfusion with Citrated Blood—a clinical study, *American Journal Diseases of Children*, 25 : 202, March, 1923.

4. Sansby, J. Martin: Intraperitoneal Transfusion of Citrated Blood. The effect of an intraperitoneally produced plethora on the hemopoietic activity of the bone marrow. *American Journal Diseases of Children*, 30 : 659, November, 1925.

cent of citrate of soda. The only apparatus necessary are large glass syringes and large gauge needles, for ease in withdrawing and injecting the blood. Strict surgical asepsis is indicated. The amount used varies from 100 to 250 cc., according to the size of the child. If repetition is necessary it is easily done, as the injected blood is usually absorbed in from twelve to eighteen hours. The site of the injection is below the umbilicus and a little to the right or left of the midline. The blood should be matched when giving intraperitoneally, although this is not absolutely necessary.

The field of hemotherapy is large. Much of this work has been reported in pediatric literature, though some is to be found in current medical literature. The opportunity is open for men in general family work to use the above outlined methods. There is no complicated technique. It is being done daily in the home and no special skill is required, just the ordinary asepsis of any surgical proceeding.

More cases should be treated and reported to encourage others in the use of this life-saving, health-giving procedure.

A. J. SCOTT,
Los Angeles.

Physical Therapeutics

The Physiological Basis of Physical Therapy: A Beginning—Physical therapy has had and is having an enormous vogue, but whether to the benefit or the detriment of the patient, and of the profession, is as yet a debatable question. The plea for physical therapy at present is that it gives the doctor a feeling that he is doing something for the patient, and it gives the patient the feeling that something is being done for him, and keeps him satisfied mentally while he is getting well. The plea against physical therapy is more complex, more difficult to state fairly and embodies more detail. In the categorical order of the minister's sermon, its defects may be stated as follows:

1. It lacks a scientific basis, is purely empiric, and has all the qualities that associate themselves with quackery, namely: mystery, ease of application, relative harmlessness, and lucrativeness. These qualities apply to the vast majority of physical therapeutic procedures. In a few instances it may be that the above is an overstatement, but, in the vast majority, it is at least a conservative statement, and in not a few a gross understatement. Physical therapeutics is today in the same state that chemical or drug therapeutics was before the days of pharmacology—purely empiric, the result of a little accumulated experience. Gradually, in drug therapy, pharmacologists began to study the real action of drugs with the result that but a few drugs still remain in the useful list, the vast majority of the drugs of a century ago having been relegated to the realms of oblivion. If one enumerates the various physical agencies and tabulates the pathological conditions and symptoms for which they have been used; and then attempts to tabulate the definitely known physiological actions of these agencies, he will be struck on the one hand, by the great number of symptoms for which physical therapeutics are

employed; and on the other by the extremely scant and meager amount of definite knowledge which we possess on this subject.

A few points concerning our ignorance of some of the procedures used hundreds of times daily may serve to awaken a healthy curiosity concerning them. Massage has been used since the dawn of human intelligence, but its exact action is as little understood as in the days of Hippocrates. When a limb is massaged is more blood brought to the part as a whole or only to the surface of the part, and are the deep portions left relatively ischaemic? No one knows. When a diathermic current is applied, say to a knee, does the current pass through or round the knee? It is true that a piece of dead meat or a potato can be cooked by a diathermic current, but the conditions in a dead piece of meat or a potato are very different from the conditions in a living knee with its capillaries and larger vessels, its nerves carrying central and peripheral impulses, its metabolites, etc., let alone pathological organisms, toxins, and various tissue changes in disease.

No physical therapeutic agent is used as frequently as heat. Its soothing effect is a matter of common knowledge and its use as ingrained in us as any folklore custom. Its definite action is, however, almost a closed book. We know certain things it does in the skin and a few experiments (crudely carried out) have been made concerning the depth to which heat will penetrate; but there our definite knowledge stops.

These examples are sufficient to show that even with the common forms of treatment our knowledge is woefully lacking and worse with other less known physical agencies.

2. It can bring the regular profession very close to the out-and-out quack. There is very little difference between a regular doctor who treats a symptom on an unknown basis with a physical agency whose action he does not understand, and an out-and-out disciple of some of our latter-day cults.

3. A very real danger in the use of physical therapy is the treatment of some symptom and thereby the oversight of a perfectly obvious lesion. This is no mere hypothetical statement.

4. Physical therapy pays. Manufacturers put out attractive machines, make extravagant claims for them, and unthinking physicians buy and, having bought, use and, having used, charge.

However, a better day appears to be dawning. In a dissertation for his doctorate in pharmacology, Lucien Dautrebande,¹ of the University of Liege, has shown that scientific methods can be applied to the study of physical therapeutic measures. In a most admirable piece of work entitled "*L'Étude Physiopathologique et Thérapeutique des Troubles circulatoires dans l'Asystolie*," he considers the circulatory and respiratory changes in cardiac decompensation, and compares the results of treatment by immersing the forearm in a cold bath for a given time, of treatment with digitalis, and of treatment

1. Dautrebande, L.: *Arch. internationales de Méd. Exp.*, 1926, 2:413-548; also in monograph form, H. Vaillant-Carmanne, 4 Place St. Michel, Liège, Belgium.

by immersing the forearm in a warm bath. Dautrebande demonstrates that a warm bath has a digitalis-like action. However, it is not so much his results as it is his scientific method of attack and his demonstration that physical therapeutic measures can be studied from a scientific basis as were drugs to drugs that merit attention. These new methods signalize a beginning in a much neglected study of physical therapy, and it is to be hoped that university medical schools will carry out similar investigation as a duty.

ARTHUR L. FISHER,
San Francisco.

Physiology, Biochemistry, and Pharmacology

Surface Phenomena and Sickie-Cell Anemia—
In view of the increasing importance assigned to surface phenomena in living structures it is of interest to note instances in which surface forces seem to play a rôle in diseased conditions. Recently H. W. Josephs¹ has called attention to an interesting set of conditions existing in so-called sickie-cell anemia.

When the erythrocytes of a patient with sickie-cell anemia are washed five to seven times with physiological salt solution the abnormal cell forms regain their normal appearance. If the washed cells are replaced in serum, or in the saline used for washing the erythrocytes of normal patients or of patients with sickie-cell anemia, the abnormal forms reappear to the same extent as originally. But the replacement of the washed cells in plasma does not result in abnormal forms. The author concludes that all plasmas contain an unknown substance which is removed by adsorption on the erythrocytes, that this substance can be washed off with saline, and lastly that this substance is responsible for the appearance of a certain number of abnormal forms in patients having sickie-cell anemia. Joseph states that there was no reduction of surface tension in the salt solutions after washing the cells, and therefore the adsorbed substance is not a constituent of bile. The further observation was made that in the presence of sickie cells there was a marked tendency to stringy agglutination.

From the data presented it is difficult to draw definite conclusions, but the fact that the cells reassume abnormal forms in serum and in the saline washings, though not in plasma, indicates the existence and emphasizes the importance of a delicate physical-chemical equilibrium between the cells and the suspending medium, possibly in virtue of a toxic substance in the anemia studied. The results are in accord with the purely experimental findings regarding the thrombocyte and erythrocyte changes produced by agents causing anaphylactoid reactions² in which physical-chemical forces were responsible.

FLOYD DE EDS,
San Francisco.

1. Josephs, H. W.: *Bull. Johns Hopkins Hospital*, 1927, xl: 77.

2. De Eds, F., and Mitchell, V.: *Jour. Pharm. Expt. Therap.*, 1926, xxviii: 433.

Proctology

Anal Fistula—Bleeding from Rectum—Anesthesia in Rectal Operations—Recent advances in the treatment of anal fistula are suggested by Norbury and Gabriel.¹ The difficulty hitherto has been the exact determination of tortuous and unsuspected tracts in complicated fistulae with multiple external openings. Often the operation is unfortunately unsuccessful owing to some of these tracts being inaccessible to demonstration either by the probe or by the injection of dyes. These two surgeons inject lipiodol followed by x-ray stereoscopic photographs of the tracts. A more accurate estimate of the branching fistulae is thereby obtained. Furthermore, when the tracts themselves are diseased, success of any operation on them is in proportion to the thoroughness with which drainage is instituted. Thus, great saucer-shaped wounds should be produced which, however, heal entirely if no fistulous tract remain. The healing of such wounds Gabriel states may be greatly facilitated by using Thiersch skin grafts subsequent to the operation.

One type of bleeding from the rectum offers its own diagnosis and that is, endometrioma involving the rectum. The patient's hemorrhage in such cases is associated with menstruation, which is the pathognomonic sign. Extrauterine endometriomata are not uncommon, but those causing bleeding from the rectum are exceedingly rare. Two instances are reported by L. M. Miles.² Microscopic investigation of these shows that the rectal mucosa is resistant to perforation by a pelvic endometrioma and that bleeding, although menstrual, occurs irregularly at monthly intervals, because the bleeding is dependent upon rupture of the tumor during its periodic congestion and not from growth through the mucosa itself. The treatment is total removal of the tumor if possible; otherwise, a bilateral oöphorectomy or radiation of the ovaries by the roentgen rays.

Murietta, Buie and others³ have added excellent discussion to the problem of anesthesia for operations on the rectum and anus. It is a subject still somewhat unsettled. Major operations produce a great amount of shock for well-known reasons. In such cases spinal anesthesia, if not otherwise contraindicated, has virtually no risk when this risk is compared to the magnitude of the operation itself. It is a different matter when one suggests spinal anesthesia for the minor operations in the perianal region, for there is an absolute danger by this method. One may operate satisfactorily on hemorrhoids, fistulae, fissures, etc., under gas and oxygen anesthesia when given by an expert. Local anesthesia distorts the flaccid parts of this region considerably and, if it were for some reason necessary to block sensation, it would be more helpful to the operator to infiltrate the caudal canal or the sacral foramina. This means, however, requires a certain experience and dexterity, but should be known by the proctologist. Caudal and transsacral anesthesia is effective in twenty or more minutes, while spinal anesthesia results in five minutes. Sacral anesthesia of the two

1. Norbury, E. C., and Gabriel, W. B.: *Proc. Roy. Soc. Med.*, January 12, 1927.

2. Miles, L. M.: *Minnesota Med.*, February, 1927, pp. 88-93.

3. *Trans. Amer. Proc. Soc.*, 1925, pp. 4-21.

types mentioned is used considerably in America but rarely in England. In the latter country spinal anesthesia for major rectal work has been used consistently since the surgeon, A. E. Barker, introduced it from Germany; and stovaine which he used, has never been supplanted. In combination with nitrous oxide and oxygen it is the favorite method in major surgery of the lower bowel. M. S. WOOLF,

San Francisco.

Surgery

Treatment of Osteomyelitis of the Jaw— Osteomyelitis, more properly termed necrosis, of the jaw is an exceedingly dangerous condition and demands infinite patience in its treatment.

In the acute state, too radical surgery in removing bone and curetting is most likely to result in a septicemia and possibly death, for new blood channels are thereby opened and the infection, as a rule streptococci predominating, gains entrance to the general circulation. Drainage of the infected area is the only justifiable treatment at this stage. It should be obtained preferably by gently clearing out the dental pocket; or, second choice, by buccal approach to the infected area or, if necessary, skin incision and opening of the periosteum laterally, or at the lower border. Mouth wash and bi-daily gentle manipulation to insure the proper drainage are essential. X-ray to show the presence or absence of necrosis is of no value under approximately ten days, and will do harm at this stage by lowering the local tissue resistance.

In the chronic stage, the basic procedures are the gradual removal of sequestra performed as spontaneous separation occurs, and avoidance of disturbance to the periosteum and the new bone which develops from the live bone cells on this layer. The diseased bone must be left a sufficient length of time, approximately ninety days, in order to retain the normal contour of the mandible. Simultaneously the new bone is forming at the periphery and gradual extrusion of the sequestra to the center, from which they may be removed without harm, ensues. The teeth, especially when only partially developed, should be left in place, for they will respectively become fixed and continue to function or grow to function. During this period, strict attention must be paid to the mouth hygiene and, if necessary, dental or interdental splinting employed, to hold the proper occlusion of the teeth of the opposite side of the mandible and the opposing teeth above.

Osteomyelitis of the jaw then, in the acute stage, should be treated by adequate drainage only, and this obtained by as little trauma as possible. In the chronic stage, time should be allowed for the new bone to develop so as to assume the form of the necrosed bone, and the dead bone to be extruded gradually from the center as sufficient separation occurs. As Blair¹ has suggested, an Italian proverb, "He who goes slowly, goes safely; he who goes safely, goes surely," should be the dictum in treatment of osteomyelitis of the jaw.

JOHN HOMER WOOLSEY,
San Francisco.

1. Blair, V. P., and Brown: Osteomyelitis of the Jaw, Surg. Clin. N. A., 5, 1925, pp. 1413-36.

Tuberculosis

Vaccination in Tuberculosis—There is much evidence to show that resistance against tuberculosis is developed in the children of tuberculous parents. Like the phenomenon of evolution, the fact is clear, although the mode of operation may be vague. In proof of the development of resistance to tuberculosis, there are facts not only supported by living material, but incontrovertible evidence is also offered by vast autopsy studies such as those by Opie,¹ Robertson,² and many others.

A disease implanting itself upon virgin soil reaps a terrible harvest. The opposite is true, however, in communities where the disease has become endemic. Epidemiological studies, notably those of Topley³ and others in England, and Flexner⁴ and his associates in this country, have shown that the factors of resistance and disease incidence among exposed and unexposed groups may be paralleled in clinical practice. The statisticians have added further important evidence of a definite relationship existing between exposure to infections such as tuberculosis, and the morbidity and mortality rates in groups of population. Dublin⁵ has pointed out the relatively lower rate for tuberculosis in children of the industrial as compared with the general population. Significantly, too, he has commented on the greater prevalence of the disease in the industrial group. It is clear, from whatever angle we would approach the subject, that tubercularization leads to a lessened incidence in the offspring and, more important still, to a favorable progress and outcome of the disease in those who may have become infected.

One of the most striking studies in recent years, reported by Drolet,⁶ has adduced evidence of fundamental interest to the student of chest diseases as well as to the general practitioner. It was found that exposure to tuberculosis was reported more frequently among nontuberculous patients than among those who were tuberculous. More than twice as many gave a history of tuberculosis in one or both parents among 2509 nontuberculous persons as compared with a group of 2785 tuberculous patients among whom only 14 per cent reported a parental history of infection. Among 5852 persons with a negative history of tuberculosis in parents, 59 per cent were found to be tuberculous, whereas among 1577 persons with a positive parental history, 34 per cent were tuberculous. Making due allowance for the smaller number of subjects in this last group, the difference appeared, none the less, striking enough to warrant the conclusion that the incidence of tuberculosis was inversely proportional to the amount of parental infection. Furthermore, evidence was adduced to show a greater tendency to recovery in patients with tuberculous parents than in members of families attacked by the disease for the first time.

In the light of the foregoing observations and

1. Opie, E. L.: Am. Rev. of Tuberc., 1924, 10, 249; Bull. N. Y. Tuberc. Assn., March and April, 1924, p. 3.

2. Robertson: Tr. Twentieth Annual Meeting, Nat. Tuberc. Assn., Atlanta, May, 1924.

3. Topley, W. W.: Lancet, 1919, 2, 1, 45, 91.

4. Flexner, S. et al.: Am. J. Med. Soc., 1926, 171, 469; ibid, 171, 625; Trans. Cong. Am. Phys. and Surg., 1919, 11, 56; J. Exp. Med. 1922-26 (numerous papers).

5. Dublin, L.: Tr. Nineteenth Meeting Nat. Tuberc. Assn., 1923, June 20, p. 18.

6. Drolet, G. J.: Am. Rev. of Tuberc., 1924, 10, 280.

much more material which cannot be discussed for lack of space, it might be of interest to analyze critically the widely heralded and exploited recent work of Calmette and his associates.⁷ Vaccination of infants with the strain of tubercle bacilli known as BCG (*Bacillus-Calmette-Guérin*), according to these investigators, protects against infection with tuberculosis. It is stated that 25 per cent of unvaccinated "control" babies succumbed to the disease within twelve months, whereas the vaccinated babies failed to contract the disease for a year or sometimes longer. Obviously, while the work may be correct in principle or theory, many years must elapse before an accurate interpretation of the data may be safely made. To offset such a conclusion, however correct this might prove to be, there is the added fact that the type of experimental material does not permit one to arrive at a decisive conclusion. In the first place, it is impossible to gauge with any degree of accuracy the results of vaccination in a group of persons exposed to conditions which are not only likely to but are known to favor the development of resistance to the disease in question. This is a point to be kept distinct from the factor that is being investigated experimentally on a clinical scale. Furthermore there is no reliable method available for estimating the number of children likely to escape tuberculosis in such a group or in an unvaccinated group. The figures of Drolet and others already mentioned should give one pause. Finally the question arises, how are we to be certain of an immunity attributable to vaccination, in the face of so many instances of tuberculosis (lymph glands, etc.), occurring in children in whom symptoms cannot be evaluated clinically, and in whom pathological changes cannot be demonstrated satisfactorily. The protection claimed by the French workers in the reports to date might just as well be laid to the individual differences in resistance of the children, such that an infection, instead of occurring within twelve months after exposure, happened to take place later.

Viewing the studies with BCG open-mindedly and not being averse to the acceptance of something new, one should, however, be willing to examine the data in terms of our knowledge of immunity, and of biological phenomena of infectious disease. To this extent it appears that the reports of vaccination against tuberculosis are, to say the least, premature and unsupported by convincing evidence.

A point of more than passing interest, too, is one regarding the supposed innocuous nature of the BCG organism which, it is claimed, cannot infect, even though it be injected in the living state. To accept this idea with complete nonchalance is difficult. Experience of laboratory workers would tend to make one hesitate before using living bacilli for injection into humans, however avirulent and innocent the organisms may appear to be. Not infrequently strains of tubercle bacilli, plague organisms (*B. pestis*) and many other pathogenic species, unaccountably lose their virulence for the experimental animal and in an equally mysterious fashion suddenly regain infectious properties. These occurrences, despite a fixed technique of artificial cultiva-

tion in the test-tube or inoculation into animals, tend to refute the assumption that pathogenic bacteria are always tractable and well trained. The writer has had such experiences while working with plague and tuberculosis and can confirm the experiences reported by others.

As to the outlook for artificial immunization and possible therapy in tuberculosis, experimental evidence suggests that neither the bacillary element alone nor the toxin element by itself will give us the key. Attention might well be focused upon the use of both substances in the form of specially prepared filtrates (toxins) and tuberculin fractions, representing the bacterial substance as well as the toxin produced by the organism. Clinical experience with the disease supports the possible validity of such a method of attack.

The purport of this discussion is a plea for the exercise of some restraint, and a more critical evaluation of clinical investigations, and of the more exalted studies, better called researches. In this way, perhaps, sensationalism will be put into the background and sound facts, compiled by careful and laborious and patient methods, will add irrefutable knowledge to the science and art of medicine. With John Hunter, let us not *think* so much as *try*.

FREDERICK EBERSON,
San Francisco.

The Free Professional Report Evil—Why a physician should be expected to look up past records of patients, compile reports therefrom, have the same typewritten, and forward to an insurance company or other organization or institution, and all without pay for his time used, energy expended, and professional opinion given, is a topic which is discussed by Dr. John V. Barrow of Los Angeles, in the communication which is here printed.

The points which he brings out are worthy of serious consideration not only by individual members of the profession, but by the officers of the component county medical associations. Members of the California Medical Association are invited to send to CALIFORNIA AND WESTERN MEDICINE, letters dealing with subjects such as this. Space will be given them in the "Medical Economics" or other columns.

Doctor Barrow's letter follows:

"Ever since medicine became a business, physicians have been imposed upon for free service by many who could well afford to pay for that service. Probably the most flagrant offenders are the life and other insurance companies, which are constantly demanding reports from physicians for the results of examinations and treatments given to patients, who are seeking either new insurance or reinstatement in old insurance.

"The insurance companies know that the physician cannot charge the patient for this service. They also know that the good-will of the patient may be sacrificed by the physician's refusal to give this service without charge or stint. The service requested is primarily to the insurance company, and not to the patient. It is intended to save the time and expense of a thorough check-up examination by the company. As a matter of fact the statement by a physician that he has treated the applicant for an illness in the past is no guarantee to the company that the disease in question has had any influence on the insurability of the applicant. The only true test of the applicant's physical condition is a thorough-going, searching examination at the time the insurance application is before the company.

"A better medical examination by the company would make for better insurance service and less risk to the company. It would be better business for the insurance

⁷ Calmette, A., and Guérin, C. et al.: Ann. de l'Inst. Past., 1926, 40, 89.

people and would not put them in the rôle of indigents, seeking gratuitous help from physicians.

"Any person or institution requesting a medical report should be ready to pay for that report and not make it a demand on charity. It is to be hoped that physicians will look more to their professional business, and realize that socialized medicine is being forced upon us by corporations, including our own state; and not by a sick public whom it is our duty and privilege to treat in a business way."

Improved Urethral Syringe (F. A. Van Buren, M. D., San Antonio, Texas)—Some years ago I devised a long, slender barrel syringe (Fig. 1) for treatment of the female urethra. This instrument became very popular and was useful to those doing gynecology and urology. It may be used also as a uterine syringe.

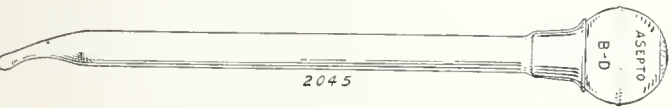


Fig. 1—Syringe with long, slender barrel

Recently I devised another model, for the female urethra and bladder only. It has a capacity of about 30 cc. of fluid, a longer curved conical tip reaching the bladder, and eccentrically placed so as not to interfere with a vaginal speculum if used. Slight pressure prevents the return of the liquid (Fig. 2).

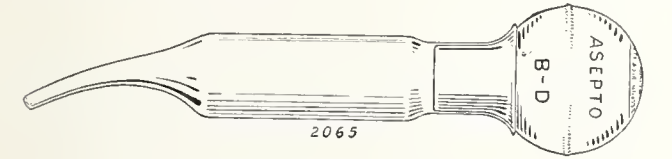


Fig. 2—Syringe for female urethra and bladder

These syringes are always in working order; they have the nonfilling bulb, and are easily cleaned and sterilized. They are manufactured through the courtesy of Becton Dickinson & Company, makers of the "Asepto" line.

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Sanitation in Flooded Areas of Mississippi Valley—Reports that have been received by the journal indicate that the acute sanitary problems arising out of the flood in the lower Mississippi Valley are well in hand and that plans for the restoration of the refugees to their homes as the waters recede are under way. The authorized refugee camps in the state of Mississippi now contain, it is said, about half of the inhabitants of the overflowed districts. The rest are scattered in unauthorized camps, are being cared for by relatives or friends, or have accommodated themselves as best they could in their own homes or other buildings on their premises. The authorized camps have been erected and are being policed by the national guard of the state. Sanitary control is under direction of the state health officer, acting in conjunction with the local health units. The American Red Cross has furnished services and supplies without stint. The people of the several communities in which these camps are located have united as a unit to support them. Few cases of acute communicable diseases have been brought in with the refugees, and in no case has there been any spread of infection. Practically all the refugees in these camps have been vaccinated against typhoid, probably more than half of them have been vaccinated against smallpox, and some have been vaccinated against diphtheria. Quinin has been freely used to cure and prevent malaria. The sickness rate in these camps compares favorably with the sickness rate in the average community under normal conditions. The outstanding sanitary lesson of the flood is the necessity for full-time health officers in states and counties, with adequate health organizations behind them. If the flood results, as well it may, in the establishment of that system of health administration, some permanent benefit will have come out of the general catastrophe.

CALIFORNIA MEDICAL ASSOCIATION

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FRESNO COUNTY

The regular monthly meeting of the Fresno County Medical Society convened at the Hotel Californian, Fresno, Tuesday evening, May 3. The meeting was unusually long, but a most interesting and enthusiastic one; attended by over fifty members of the society. Dr. D. I. Aller, president, presided.

The regular routine of business was suspended in order to hear from Chief of Police W. G. Walker and Captain of Police John P. Murphy in regard to a subject of much interest and importance to the doctors practicing in the city of Fresno. Congested parking conditions on the streets of Fresno have been for years an increasingly difficult problem of solution for the Police Traffic Department. In spite of these conditions the police department had made an exception in the matter of tagging the doctor's vehicle, as recognized by the various medical emblems—insignia and dash-plates obtainable through the police department. It has been found, however, that this special privilege granted the physician has been grossly abused by a few physicians who obtained duplicate plates for their second or family car; also by nurses, cultists, and dentists to whom this privilege was not extended. A police bulletin that became effective May 1st therefore canceled all such privileges.

Chief of Police Walker outlined the necessity of the comparatively drastic bulletin, which in brief is a final effort to correct this prevailing evil, and to make possible a new method of restoring the parking privilege to the doctor only. It is the plan of the Police Department to issue a new emblem only to legitimate physicians and surgeons who are first approved by the Fresno County Medical Society. It was suggested by the Police Department that a committee be appointed by the society to cooperate with the Police Department in the matter of choosing the emblem and in granting permission for the emblem. The suggestion was approved by the society, and the sincere appreciation of the courtesy extended the society expressed to the Police Department.

Resolution Adopted by the Society

Whereas, It was the will of the Almighty to remove from this earth, Benjamin F. Walker, son of our honored and esteemed Dr. J. R. Walker and nephew of Dr. George Walker; and

Whereas, Benjamin F. Walker was known to be a young man of sterling character and great promise in his chosen line of endeavors; and

Whereas, This society feels that the entire community has suffered the loss of a good citizen and faithful son, be it

Resolved, That the Fresno County Medical Association through its officers and governors extend to the bereaved family their heartfelt sympathy; and be it further

Resolved, That a copy of these resolutions be sent the bereaved family and a copy spread upon the minutes of this Association.

THOMAS F. MADDEN
D. I. ALLER
C. O. MITCHELL.

Dr. Thomas F. Madden, who attended the Los Angeles state convention, gave a brief report of the convention. Doctor Madden stressed the advisability of electing delegates and alternates for future meetings whom we were certain would attend and take an active part in the meetings.

Report of Committees

Committee on Health Examinations of Preschool Children.

Gentlemen: At a joint meeting of your Board of Governors with the Fresno County Health Officers, held April 19, 1927, with the president, D. I. Aller, presiding,

a committee was appointed by the Chair, consisting of two members of this board, together with the city of Fresno, and the Fresno County Health Officers, to submit for your approval, tentative plans for conducting health examinations of the preschool children of this county.

We have the honor to report as follows:

1. That this Association endorses the examination of preschool children as recommended by the State Board of Health.

2. That the family physician perform these examinations wherever possible.

3. It is felt necessary to clarify somewhat the term "Health Examinations." This committee, therefore, wish to define "health examinations" as consisting of the following:

- (a) A permanent, accurate, complete record.
- (b) Ample time for an examination.
- (c) The subject to be without clothing.
- (d) A thorough review by the examining physician of his findings and of the history.
- (e) That this report be made in triplicate, one copy of which will be available for the parents, or guardian, one copy for the school, and the original to be kept in the files of the health officer, to be open to the family physician whenever requested.

(f) Children to be urged to report the following year; or when feeling ill, losing weight or having cough.

(g) Fair remuneration for the examining physician, \$5 minimum fee in the office. Recommend that in incorporated cities or school districts wherever possible that a fee of \$10 per hour be paid the examining physician.

(h) Send all eye and ear cases to physician specialists.

In contradistinction of the above thorough health examination, all other methods which are less thorough shall be designated as "Health Inspection."

The first method requires for its completion a doctor of medicine, the second may be performed by nurses or other assistants trained in this type of work, with which latter this committee shall not concern itself in this report.

Consultants: When so designated by the examining physician the child should be sent to a consultant, as, x-ray, laboratory, or other specialists, these consultants to be designated by the respective health officer in whose district the child resides.

Your committee respectfully submit for your approval the foregoing as a basis for examination of all such school children. It is the opinion of your committee that any less thorough method is not worthy the consideration of the Fresno County Medical profession generally.

It is our belief that these records should be so carefully compiled and so conscientiously executed that they may remain the permanent records of this county, and that they reflect nothing but credit upon the medical men employed in this work.

There is a feeling, not without basis, that the promiscuous inspection of school children by nurses, and other trained help, and by hurried, overworked medical men does great harm to the cause for which this work is being undertaken. It engenders a lack of confidence of the laity and the loss of support of the more conscientious men in the medical profession.

C. O. MITCHELL, *Chairman.*

Recommendation of Board of Governors on Immunization of School Children Against Diphtheria

Gentlemen: Regarding the immunization of school children against diphtheria, we have the following to recommend:

1. That this Association is not in favor of the wholesale immunization of public school children free of charge or even for the nominal cost of the toxin-antitoxin.

2. That this Association concurs with the action of the Health Officer and Board of Health of the city of Fresno, to wit: There being no funds available in the budget for such work, and feeling that the taxpayer at large should not be burdened with this expense, the board does not feel that the wholesale immunization of the public school children against diphtheria is available. We wish, therefore, to throw the responsibility of immunization upon the parents, after due publicity as to importance of treatment has been given.

3. We further recommend that permission be granted the Board of Governors of this Association to run a paid

advertisement in the two daily papers of Fresno City, setting forth the values of toxin-antitoxin and statistics regarding immunization. Literature and propaganda will be obtained from the State Board of Health, some of which may go in as story material. These articles and advertisements are to be signed by the Fresno County Medical Association.

BOARD OF GOVERNORS.

Dr. Harry Spiro of San Francisco read a most interesting and highly technical paper entitled "The Heart as Viewed from Various Angles." Doctor Spiro also showed several instruments of his own design and lantern slides and motion pictures.

Doctor Spiro outlined briefly the various methods of arriving at a diagnosis in heart disease, including history, percussion, auscultation and radiography and concluded that, outside of certain arrhythmias, he would rather rely on his method of radiography than any one other method. Heart measurements and contour as determined by films and fluoroscope at various angles permits of very accurate diagnosis in organic heart disease. In fact, unless we know the angle at which a cardiac film is taken, radiological findings are very unworthy guides. This is likewise true of the aortic shadows.

Discussion on the part of the society members was limited, for the subject, while not entirely new, was highly technical for the average member. I believe we all feel that much good is to come of this manner of cardiac examination in the near future, and much credit is due to those pioneering the work.

E. C. HALLEY, *Assistant Secretary.*

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LOS ANGELES COUNTY

The First Annual Institute on Public Health, under the joint auspices of the Los Angeles County Public Health Association, Inc., and the Medical Advisory Board of the Los Angeles County Health Department will be given at Los Angeles, commencing June 20 and ending July 9.

This course will have as its major speaker, Charles E. A. Winslow, A. M., Doctor Public Health, Lauder Professor of Public Health, Yale Medical School, New Haven, Conn.; Senior Sanitarian, United States Public Health Service (retired); late General Director, League Red Cross Societies, Geneva, Switzerland; well-known author and publicist on public health topics, etc.

* * *

The instruction and work of this institute will fall under two major heads:

1. A Technical Instruction Course

Designed to meet the needs of those desiring to improve their capacity in efficient public health service, such as physicians, nurses, social service workers, laboratory technicians, sanitarians, and others. This course will be given during morning hours at Patriotic Hall, 1816 South Figueroa, near Washington, 8:30 to 10 a. m.

2. A Popular Evening Lecture Course

Being a series of six lectures on important subjects of professional and lay interest. To be given at Patriotic Hall, 1816 South Figueroa, near Washington. These lectures will be given in the auditorium. Moving-picture films on public health subjects will be shown from 7:30 p. m. to 7:45 p. m. The lectures will cover the period from 8 to 9 p. m.

* * *

Technical Section, June 20 to July 9

The presiding officer at each meeting will be County Health Officer J. L. Pomeroy or some member of the County Health Department Advisory Board. All lectures in this course will be at Patriotic Hall, 1816 South Figueroa. Hours: 8:30 to 10 a. m.

The lectures in the technical section will be on the following subjects:

FIRST WEEK

Monday, June 20—Opening exercises, 9 to 10 a. m., County Health Officer J. L. Pomeroy, M. D., presiding.

Address of Welcome by R. T. Radford, president Los Angeles County Public Health Association.

Remarks: Dr. George H. Kress, chairman Medical

Advisory Board, Los Angeles County Health Department.
Lecture No. 1—"Planning a Community Public Health Program for cities over Fifty Thousand."

Wednesday, June 22—Lecture No. 2: "Planning a Public Health Program for Cities Under Fifty Thousand."

Friday, June 24—Lecture No. 3: "Special Problems of Municipal Sanitation."

Saturday, June 25—Lecture No. 4: "The Hygiene of Occupation, Recreation, and Applied Personal Hygiene."

SECOND WEEK

Monday, June 27—Lecture No. 5: "Sanitation in the Control of Communicable Diseases."

Wednesday, June 29—Lecture No. 6: "The Newer Problems of Public Health."

Friday, July 1—Lecture No. 7: "Inter-Relations of Modern Social Service and Preventive Medicine."

THIRD WEEK

Tuesday, July 5—Lecture No. 8: "The School Health Program and Health Education."

Wednesday, July 6—Lecture No. 9: "Modern Prevention of Tuberculosis."

Friday, July 8—Lecture No. 10: "Public Health Nursing, Its Problems and Its Future."

B. Popular Lectures Section

These popular lectures will be given in the evenings, in the auditorium of Patriotic Hall, 1816 South Figueroa. There will be a moving-picture film from 7:30 to 7:45 p. m. on some public health subject. Lectures proper will begin at 8 p. m. The subject of each lecture will be introduced by brief remarks from Los Angeles and California physicians, having a special knowledge of the subject under discussion. Professor Winslow will give the major talk of each evening.

Tuesday, June 21—Lecture No. 1, 7:30 to 9 p. m.: "The Evolution and Significance of Modern Public Health."

Presiding officer: Dr. George Parish, Health Commissioner, city of Los Angeles.

Introductory remarks by Dr. J. L. Pomeroy, County Health Officer, and Dr. George H. Kress, chairman Advisory Board, Los Angeles County Health Department.

Thursday, June 23—Lecture No. 2: "Public Health International Relationships."

Tuesday, June 28—Lecture No. 3: "Public Health as a Vocational Opportunity." Specially planned for undergraduates in nursing, dentistry, medicine, and allied sciences.

Thursday, June 30—Lecture No. 4: "Infant and Maternal Hygiene." Program in charge of the pediatricians and County Medical Milk Commission.

Wednesday, July 6—Lecture No. 5: "Mental Hygiene and the Public Health."

Thursday, July 7—Lecture No. 6: "Life Insurance, Industrial Medicine and Life Extension Work—What They Mean to the Public Health."

This institute has been made possible through financial assistance from the Los Angeles County Public Health Association, and four members of the staff of the County Health Department. Through this institute, with its technical and popular lectures it is hoped to raise the standard of local health activities and to help all who take the courses to gain inspiration for better work. It is planned to make this institute on public health an annual event.



SACRAMENTO COUNTY

The April meeting of the society was held in the Empire Room of the Sacramento Hotel on the evening of the 19th. Forty-one members were present. The minutes of the February meeting were read and approved. There were no case reports.

Insanity and crime or, more particularly, Insanity and the Prevention of Crime was the subject chosen by Burt F. Howard. The doctor said:

"In spite of variations in symptomatology due to personality, certain forms of insanity may be diagnosed as constituting a menace to society before the afflicted individuals have had opportunity to commit crime. The prompt detention of these persons would save many lives, and this most desirable end would be facilitated if public opinion would sanction and provision be made for tem-

porary observation of all suspected cases by experts in psychopathic hospitals.

The types most often at large, while at some time potentially dangerous are melancholic epileptic and paranoid forms. While these are usually irresponsible, they are often held accountable for crime committed.

Constitutional psychopathic inferiority was not considered within the province of his paper.

Confusion in expert testimony in case of crime committed by the insane would occur less frequently if accurate observation as to facts were possible to the alienists. This confusion would be still further lessened by having the court select, in each case, an unbiased commission who would render a written report."

The discussion entered into by Wilder, Harris and Reynolds, and concluded by Howard, centered about the so-called "anti-social" group, and the question of insanity as applied to this group.

Applications for membership were read for the first time from Clarendon A. Foster and Thomas R. Haig. The applications of Eva M. Shively and Raymond M. Wallerius were read for the second time and were presented for a vote. Both were elected to membership.

The report of the Board of Directors quoted action of the San Joaquin County Medical Society on Goodale's Physicians' and Surgeons' Insurance Company plan. The attitude of the San Mateo Medical Society relative to the Industrial Medicine Service, as shown in their letter to Governor Young, was presented. Announcement was made that the bulletin of the San Francisco County Medical Society will now be received directly by the local hospitals. The board presented amendment to Article II of the Constitution, and an addition to the By-Laws.

Communications acknowledging our expressions of sympathy were received from the families of F. A. Grazer and W. E. Musgrave.

Letters from Robert A. Peers and the California Tuberculosis Association announced the meeting of the California Tuberculosis Association in Sacramento on May 6 and 7.

Notes from Harlan Shoemaker, in reference to Senate Bill No. 60 and Assembly Bill No. 1261, have been referred to the Governor together with our adverse criticism of these bills. A kindly reply has been received from the Governor. Thomas Nelson and Sons wrote us in answer to an inquiry made on the charges for delivery of their books that they do charge an additional fee over and above the sale price of their books to get them to the doctor. This question was asked of the Nelson Company, due to the fact that several inquiries were made through the secretary's office. It seems that the Nelson Company is the only medical book-selling company which follows this practice. The doctor, in good faith, makes this purchase, expecting delivery to his office for the originally stated purchase price, and, to his surprise, finds a notification that his books are lying at some railroad terminal for him to arrange for their delivery to his office and pay all carrying charges.

Under New Business, the amendment to the Constitution and the addition to the By-Laws were laid on the table until after the state meeting. This was done with the purpose of consulting with the state officers regarding their legality and the possibility of conflict. The delegates to the convention were instructed as to our desires in this matter and were told to maintain the identity of the society.

The 1928 committee outlined its plan of action.

The banquet committee reported no deficit.

A motion was made, seconded and carried to extend a vote of thanks to those men instrumental in bringing the meeting of the American College of Surgeons to our city. The meeting adjourned to a buffet lunch.

BERT S. THOMAS, *Secretary*.



SAN BERNARDINO COUNTY

Minutes of the meeting of the San Bernardino County Medical Society held May 3, 1927, at the County Hospital in San Bernardino.

Meeting was called to order by the president at 8:10 p. m. Minutes of the previous meeting were read and approved.

Question of the June meeting was brought up and

moved by Dr. C. G. Hilliard and seconded by Dr. G. G. Moseley that no June meeting be held. Carried unanimously.

Committee on Industrial Medicine reported by Dr. G. G. Moseley. He also gave a brief report of the state meeting.

The San Bernardino County Milk Commission reported through Dr. F. Folkins regarding the sale of certified milk produced in Los Angeles County and sold in San Bernardino County. The decision being that such milk is subject to the same rules that govern the sale of certified milk produced in San Bernardino County and sold in Los Angeles County.

The program of the evening was then entered upon.

"Symposium on Common Infections of the Upper Respiratory Tract." Each speaker was allowed ten minutes and took part in the following order: Dr. Lenore D. Campbell, "Etiology and Pathology"; Dr. G. Moseley, "Standpoint of an Internist"; Dr. C. A. Wylie, "Pediatrician"; Dr. A. T. Gage, "Ear, Nose and Throat"; Dr. C. G. Hilliard, "Surgeon"; Dr. K. L. Dole, "Public Health." A discussion on the symposium was opened by Dr. D. C. Mock.

In the absence of Dr. A. T. Gage, Dr. W. Savage was called upon to fill his place.

The meeting adjourned at 10:30. There were about thirty-five present.

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SAN DIEGO COUNTY

The regular dinner meeting of the society for April was held in Seltzer's Auditorium where, after a generous spread, Dr. A. B. Wessels entertained the society for an hour with a delightfully reminiscent account of his recent tour of the European nose and throat clinics. The listener, while enjoying Doctor Wessel's tour of the British Isles, France, Germany, Austria, Italy, Holland, and Belgium, was glad to get back to his own United States, and was impressed by the fact that his own clinics are probably as productive of culture and improvement in technique as were any of those visited by the speaker.

At the April meeting of the Mercy Hospital medical staff Dr. Fraser Macpherson gave an extremely interesting discussion on backache, cause and treatment from the standpoint of the orthopedist.

About fifty of our members attended the greatest session ever held by the state society at Los Angeles the latter part of April.

Already a number of our members are on their way East on study bent and to enjoy the American Medical Association meeting at Washington, D. C.

We hope to announce the opening of the new Medical-Dental Building within a few weeks, as the interior finishing is going rapidly forward and it is practically rented throughout. As this is San Diego's first exclusive professional building, it really marks an era in the development of the city and the advancement of its medical and dental professions.

ROBERT POLLOCK.

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SAN FRANCISCO COUNTY

Meetings of the society were held on May 3, 10, 17, 24, and 31. No further meetings will be held until August because of the summer vacations.

At the end of April the call was sent out for payment of the first installment of members' subscriptions to the fund for the new home at 2180 Washington Street, San Francisco, and the society is now busy collecting this money.

It has been found conveniently possible to serve refreshments in the new quarters and henceforth, after each general meeting on the second Tuesday of the month, nourishment will be provided to members and visitors. It is found that this adds a great deal to the social side of the society's internal relations, and is enjoyed by numerous members who thus find a stimulus for some nontechnical chatter after the meetings.

St. Luke's Hospital Clinical Club held a meeting at the hospital on April 14, 1927, J. Marion Read speaking upon the clinical and physiological significance of the blood pressure. He concluded that the pulse rate and pulse pressure vary directly with the basal metabolic rate, and that the increase in pulse pressure is due to a rise

in the systolic pressure, the diastolic pressure remaining practically constant. Some patients increase the minute volume by increasing the number of systoles, while others do it by increasing the quantity of blood thrown into the aorta at each systole, and if this be true pulse pressure might be a rough measure of stroke volume. Therefore, if the minute volume in a patient remains constant, reciprocal relations may exist between pulse rate and pulse pressure.

The meeting of St. Joseph's Hospital staff, San Francisco, on May 18, was called to order by Vice-President Dr. Frank Lowe, and reports were presented by the delegates to the recent meeting of the A. C. S. at Sacramento. Sister M. Agnes, superintendent of the nursing school, spoke first on "Importance of Hospital Standardization," abstracted below:

Hospital standardization has brought about an increased service, knowledge and spirit of cooperation. It is necessary to have forms for the doctors to fill out when applying for the privileges of the institution, which must be considered and be followed by the record of the doctor's efficiency, especially as a basis for promotion. Regulations for the admittance of patients with a provisional diagnosis is, except in emergencies, standing orders to facilitate the investigation of the sick and special written ones are recommended. Doctors should be responsible for a proper history and record of findings and progress, and at operation tissue removed should be examined by pathologist. Consultations seem very desirable with the opinion of the consultant recorded by himself. The medical house staff and nurses depend on visiting doctors for instruction. The appropriate number of patients in charge of student nurses and group private nursing by graduates is important. Prevention of improper surgery is engendered by standardization, and is made more probable by proper training, a probationary period, preoperative study and diagnoses, and staff conferences. Autopsies should be appealed for tactfully.

Dr. A. S. Musante, president of staff, followed with "Improved Hospital Staff Conferences," and concluded as follows:

Hospital staff conferences make principally for a more conscientious consideration of the patient. Acceptance of St. Joseph's as a standardized hospital was the beginning of a renaissance of better professional work, planning and construction of steel and re-enforced buildings for 350 patients and addition of new special and general men to the staff. The advantages of the moral and economical status of patients, due to the sacrifices and inspiration of the numerous Sisters in this hospital are important. The obligation of the staff to review monthly the hospital cases, especially mortalities, and assume the responsibility for a sound professional atmosphere is imposed by the American College of Surgeons and the American Medical Association. A doctor should only be absent from meetings if he is ill, out of town, or unavoidably detained professionally. Programs must consider the work of the hospital primarily and conclusively, although other attractions seem advisable. Public health lectures can be attempted to inform the thinking laity.

Drs. W. J. Lynch and Franz Herborn reported on autopsies and physiotherapy, and Miss F. Simmerly on the inauguration of "The Pulse," a monthly of the students of the hospital's school of nursing. A demonstration of a bedside clinic for nurses closed the meeting.

T. HENSHAW KELLY, *Secretary*.

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SAN JOAQUIN COUNTY

At a stated meeting of the San Joaquin County Medical Society held at the headquarters of the local Health District, 129 South American Street, on Thursday evening, May 5, the president, J. W. Barnes, called the meeting to order at 8:30 p. m. The minutes of the previous meeting were read and approved. Twenty-seven were in attendance. Those present were Drs. J. W. Barnes, E. L. Blackmun, J. F. Blinn, Winnifred E. Biethan, C. A. Broadus, Fred P. Clark, F. J. Conzelmann, L. Dozier, C. F. English, F. T. Foard, Percy B. Gallegos, E. C. Griner, J. P. Hull, L. R. Johnson, H. E. Kaplan, Grace McCoskey, F. G. Maggs, F. S. Marnell, Dewey R. Powell, A. R. Powers, S. F. Priestly, G. H. Rohrbacher,

G. H. Sanderson, J. J. Sippy, Margaret H. Smyth; William B. Wells, Health Officer of Riverside County as visitor, and Dr. George Warren Pierce of San Francisco, guest and speaker of the evening.

An invitation of the Central California District Dental Association to the members of the San Joaquin County Medical Society to be present at their meeting Saturday, May 7, at 8 p. m. at Wilson's Confectionery, was read and accepted.

Dr. Margaret H. Smyth rendered her report as delegate to the state meeting, which was accepted.

The president introduced Dr. George Warren Pierce of San Francisco, who spoke on the subject, "Recent Advances in Plastic Surgery."

Plastic surgery deals with the defects and malformations and the restoration of functions and improvement of appearance. This is done by transfer of tissue. Plastic surgery deals chiefly with defects involving the skin rather than the bones and joints. No two cases requiring plastic surgery are exactly alike, hence no "cut and dried" methods can be employed. Every case presents some special features. Each case must be carefully studied and the various methods of repair considered from every standpoint. Good surgical judgment is essential.

Skin grafts are divided into thin grafts and thick grafts; thick grafts which include the full thickness of the skin as in the method of Wolf, and thin grafts where only the superficial layers are used as in the method of "Thiersch." The speaker employs Esser's method of splinting the "Thiersch." This is accomplished by making a negative impression of the wound with dentist's impression material and then covering the mould with a "Thiersch" and placing it on the wound; this method insures evenness of the "Thiersch" and allows it to be placed under equal pressure. The mould is removed after a period of ten days or two weeks. The results with this method of treatment have been very satisfactory, and is applicable to defects of the eye, ear, nose and mouth, or anywhere on the body.

Doctor Pierce showed motion pictures and slides of his actual work which explained much in a short time, and illustrated the defects and deformities and the results of plastic surgery much better than any amount of theoretical discussion. The members asked questions, which Doctor Pierce answered in a practical way.

The chair extended the thanks and appreciation to Doctor Pierce in behalf of the society.

FRED J. CONZELMANN, *Secretary*.



SANTA BARBARA COUNTY

The regular monthly meeting of the Santa Barbara County Medical Society was held in the Cottage Hospital on May 9, with President H. E. Henderson in the chair.

There were present twenty-four members of the society.

The minutes of the previous meeting were read and approved.

The scientific program consisted of the following:

Report of a clinical case of a third degree burn, Dr. Rex Brown.

Diverticulum of the Esophagus, with lantern slides, Dr. C. T. Sturgeon of Los Angeles. This paper was discussed by Doctors Robinson, Pierce, Means, Freidell, Nuzum, Koefod, and Stevens.

Esophageal Obstruction, Dr. H. Freidell. This was discussed by Doctor Means.

At the close of the scientific program the meeting went into executive session. It was moved, seconded and carried that the president appoint three members of the society as a committee to extend an invitation to the Pacific Coast Oto-Ophthalmological Society to hold their next annual meeting at Santa Barbara. The president appointed Dr. W. J. Mellinger, chairman, and Doctors Profant and Eaton to serve on this committee.

There being no further business the meeting adjourned.

WILLIAM H. EATON, *Secretary*.

TULARE COUNTY

The Tulare County Medical Society held a joint meeting with the San Joaquin Valley Health Officers' Association. The two societies met at Mrs. Estrada's Tamale Parlors in Visalia at 6:30 to enjoy a Spanish dinner.

The meeting was called to order at 7:30 by Doctor Zumwalt, president of our own society.

Members present were Doctors Gilbert, Preston, Ginsburg, Walters, Tourtillot, Hicks, Paine, Betts, Rosson, Seligman, Melvin, Loper, Brigham, McSwain, Zumwalt, Miller, Bond, Groesbeck, Pratt, Todd, Edmonds, Campbell.

Councilor F. R. DeLapp of Modesto was present in his official capacity as a guest.

Dr. W. R. B. Clark, director of tuberculosis of the San Francisco Board of Health, was present and gave a short but very interesting talk on tubercular contacts and their control.

Dr. William C. Hassler, San Francisco Health Officer, then spoke on problems of the Board of Education and the Board of Health, a very interesting talk and not too technical for the many school and county nurses who were present as our guests.

At Doctor Hassler's suggestion, all present stood in silence for one moment in honor of the anniversary of the death of Lister, April 5.

Thirty plates were set at the table, and a few more persons arrived after dinner.

H. G. CAMPBELL, *Secretary*.

PRIZE ESSAYS

The following is the report of the Clinical Prize Committee for 1926-27 as submitted by Dr. Dudley Fulton, Chairman:

"Your committee, appointed for the awarding of the research and clinical prizes for the year 1926-27, begs to report as follows:

The committee recommends that the essay entitled "The Diagnosis of Drunkenness," under the nom de plume of "Aretaeus," be awarded the prize for research work.

The committee does not award any clinical prize unless, in the judgment of the Council, this prize should be awarded as a matter of policy to maintain interest in this competition in the future.

The following recommendations are respectfully submitted to the Council:

1. That the policy of holding these competitions for research and clinical prizes be continued.

2. That this competition for prizes be given much more publicity than in the past. It is the belief of the committee that this might be accomplished by the following methods:

(a) That an announcement be made in each section of the society, urging greater interest in the competition.

(b) That more frequent mention of the matter be made in the state journal.

(c) That the secretary of the society remind each component society, which might be of benefit in keeping the matter before the individual members of the society.

3. That there be a change of two members of the Clinical Prize Committee each year.

The California Medical Association Research Prize of one hundred and fifty dollars, for the year 1927, was awarded Dr. Emil C. Bogen, 1100 Mission Road, Los Angeles, for his article, "The Diagnosis of Drunkenness," which appears elsewhere in this June issue.

CHANGES IN MEMBERSHIP

New Members—Fresno County—La Rue Moore, Elmer J. Schmidt, Fresno.

Los Angeles County—Louis Baltimore, Glenn O. Dayton, L. Ray Faubion, Lowell S. Goin, David H. Rosenblum, Clifford B. Walker, Los Angeles; Robbin E. Fisher, Pomona; Forest E. Fleming, Emile C. Houle, Beverly Hills; John C. E. Hagen, Walter W. Woods, Alhambra.

Sacramento County—Eva M. Shively, Fair Oaks; Raymond M. Wallerius, Sacramento.

San Diego County—Edward F. F. Copp, La Jolla.

San Francisco County—A. Lincoln Brown, San Francisco.

San Joaquin County—Percy B. Gallegos, Stockton.

Transferred Members—F. C. Ferry, from Los Angeles County to Orange County.

P. J. Hanzlik, from San Francisco County to San Mateo County.

Paul L. Markley, from Imperial County to San Diego County.

Mary C. Taylor, from San Joaquin County to San Francisco County.

Elected as Honorary Members to California Medical Association—John C. King, Pasadena; R. F. Rooney, Auburn.

DEATHS

Southworth, Henry E. Died at Los Angeles, April 29, 1927, age 54 years. Graduate Cooper Medical College, 1900. Doctor Southworth was a member of the Los Angeles County Medical Association, the California Medical Association, and the American Medical Association.

Ghrist, Jennie G. Died at Glendale, May 5, 1927, age 58 years. Graduate Keokuk Medical School, Iowa. Licensed in California in 1924. Doctor Ghrist was a member of the Los Angeles County Medical Association, the California Medical Association, and the American Medical Association.

MINUTES OF THE HOUSE OF DELEGATES, FIFTY-SIXTH ANNUAL SESSION OF THE CALIFORNIA MEDICAL ASSOCIATION

First Session

Held in the Music Room, Hotel Biltmore, Los Angeles, California, Monday, April 25, 1927, at 8 p. m.

I. Call to Order—The meeting was called to order by the President, William T. McArthur of Los Angeles.

II. Roll Call—The secretary called the roll; seventy-nine (79) delegates were seated, and the president declared a quorum present.

III. Report of the President—The following report was submitted by President William T. McArthur:

In addition to the presidential address, delivered this morning, I wish to submit, as perhaps worthy of consideration by the proper committees of the House of Delegates, the following:

1. We should endeavor to extend the influence and usefulness of our organization by increasing its membership. There are many good men outside of our association who could come in with profit to themselves and benefit to us. Not quite 50 per cent of the regular physicians of the state belong to the California Medical Association. Heretofore one objection to asking any regular physician to make application to join the county society has been that, frequently after he has done so, the applicant has been rejected by the Council of the county unit. This causes considerable embarrassment to the physician who invited him. If there is any doubt about one's acceptability, the way to overcome this difficulty is for the Committee on Membership to obtain all possible information about him, both local and general—information covering education, practice, character, etc., and present the same to the Council of the county society and obtain its approval before inviting the physician to join. A membership drive conducted along proper lines would, I believe, increase our membership fully 25 per cent.

2. The relation of hospital staff and county society meetings should be more clearly defined. The number of meetings a physician is obliged to attend these days is ruinous to his health and seriously interferes with his home life. Some plan should be devised whereby the hospital staff meeting could work in conjunction with, and form a part of, the regular county society meeting.

3. The profession should endorse and cooperate with all legitimate organizations having to do with increasing the number of standardized hospitals, or contributing toward their efficiency and betterment.

4. There is need of constant alertness on questions of public health policy.

5. The Committee on Industrial Medicine should be especially vigilant for fear that improperly trained persons jeopardize the physical welfare of many of our citizens and seriously disturb the economic phases of our social order.

6. The demand for public health news is so great that we should be watchful to see that information given

through the press or broadcast over the radio is in keeping with the best that scientific research work has produced.

7. The profession as a whole should be on guard lest a too paternalistic policy on the part of the county and state should lead to the pauperization of patients in our county hospitals.

The report of the president was referred to the Reference Committee.

IV. Appointment of the Reference Committee—The president announced that he had appointed as members of the Reference Committee, Harlan Shoemaker, Los Angeles, chairman; Edward N. Ewer, Oakland; John Yates, San Diego.

V. Report of the Council—The acting chairman of the Council read the following report of the Council:

Death of Doctor Parkinson and Doctor Musgrave—In the loss of these two men, the Council and the California Medical Association at large have been deprived of two most effective workers. Dr. James H. Parkinson was missed at the Oakland session of last year. He was then suffering from the malady which finally caused his death.

One must have been a member of the Council to have fully appreciated the full worth of Doctor Parkinson to the Association. As chairman of the Council through several consecutive years he kept himself in exact touch with every minute phase of association activity. He actually expended of his time and himself more than does any other councilor. We have been deprived of a tireless, enthusiastic, conscientious, judicious and courageous colleague. His place cannot be filled, for there is no one who has the requisite background of California medical history to equal his.

Dr. William Everett Musgrave was our editor for six years. The development of the journal of the California Medical Association he made his pride. He spared no pains, and worked at his task at times when, we suspect, he would better for his own good have rested from his labors. Our journal under his editorship developed into first place of state medical journals. Such qualities as were combined in him do not often unite in one man. Furthermore, Doctor Musgrave served us without remuneration. His place cannot be filled as he filled it. Truly the last year has dealt a staggering blow to our association in the loss of two such men.

Council Meetings from April, 1926, to April, 1927:

The Council has held three regular meetings during the year; the daily sessions during the annual meeting not included.

Annual meetings, April 27, 28, 29, and May 1, 1926, at Oakland.

Fall meetings, September 18 at Los Angeles, and December 4, 1926, at San Francisco.

Spring meeting, January 22, 1927, at San Francisco.

Special spring meeting, March 19, 1927, at San Francisco.

Eight sessions in all.

The financial condition of the Association is on a sound basis. The books and accounts of the Association were audited by Mr. Hugh Ross, public accountant, and according to his report on file were found correct. All claims are audited by the Auditing Committee, the bills approved by that member of the staff responsible for them. The voucher is then approved by the secretary, signed by the Auditing Committee and countersigned by the chairman of the Council and the secretary.

Annual Assessment—The statement made by the Council at the last annual meeting is quite as pertinent now as it was then. The funds of the Association have increased very satisfactorily. The gain is in proportion to that of the previous four years. However, we now are confronted with the necessity of paying a real salary to an editor. If we are to develop the permanent convention headquarters plan, we must have resources adequate for the purpose. The medical defense is not yet finished. There are still forty-three claims and cases pending. There is still a possibility of considerable drain on the

treasury by that avenue. The Council therefore recommends that the annual dues for 1928 be set at \$10.

Optional Legal Defense (Medical Society of the State of California)—Optional legal defense, inaugurated by the Council under instructions from the House of Delegates, went into effect July 1, 1924, for 168 members. There should be at least 1000 members to afford a sufficient margin of safety. It is, however, gratifying to note that an increase is being shown. When the doctor finally realizes what suits of this character really mean to him the increase will be more rapid.

Total membership December 31, 1926, 716.

In addition to the general counsel and the assistant general counsel, local attorneys are employed in practically all cases outside of Los Angeles and San Francisco, the total fees other than the regular retainers of all attorneys are shown in the first column. The prorated general office expense represents an arbitrary allocation against this department which was placed at one-sixth of the total general office expense up to 1920 and from then on to 1926 at one-third. In 1926 this was reduced to an estimated figure of \$50 per month. In addition to the cases and threatened cases of alleged negligence, the general counsel's report will cover the work of that department in connection with the proposed incorporation of the Association, the status of county hospitals, CALIFORNIA AND WESTERN MEDICINE and miscellaneous matters connected with the operation of the organization, proceedings of the Council, and the activities of your officers.

The Journal—The loss of Doctor Musgrave causes a crisis in the affairs of the journal which must be met. Doctor Musgrave put his heart, soul and strength into the journal. It was his work and his hobby. Such a combination of qualities as he possessed coupled with such vital interest in the work will be hard to duplicate. When we add the fact that he served us without pay we can say that his place can never be filled.

The Journal Committee of the Council is charged with the search for an editor who shall as nearly as possible match up to our requisites. For the present the Council has appointed temporarily Drs. George H. Kress and Emma W. Pope, joint editors. These most efficient members have stepped into the breach and have taken hold of the journal, in addition to their other Association duties and professional work, and you may rest assured that the journal will be continued on its usual high plane. There is no crisis. The committee will take time to make careful selection.

Permanent Convention Headquarters—For several years the Association has been giving serious thought to permanent headquarters. The size of our meetings is such that only the larger cities afford adequate room for meetings.

It is apparent to some of us that sooner or later we must look to our own resources for our convention facilities. Our thoughts have turned to the possession of a site, which shall be attractive and quiet, central geographically, easily accessible, with ample housing facilities convenient. A place where some day there may be pavilions for meetings, areas for members' cottages and camp sites, with a nucleus of permanent buildings, possibly housing a library and laboratory for research. Ultimately there may be a home for retired members—who knows!

Formation of the Medical Activities Committee—For the last four years the part of the annual program embracing consideration of institutions, organizations, education, hospitals, legal medicine, group medicine, and other activities of medical economics has been in charge of the League for the Conservation of Public Health. Our Association is under deep obligation to the League for the efficient services which it rendered to organized medicine during these years, in the elevation of standards in hospitals, medical schools and associated activities.

In order to standardize the procedure of the California Medical Association with that of the A. M. A. and other state associations, as well as to bring these activities under the control of the C. M. A., the Council formed a committee called the Medical Activities Committee, which will in the future carry out these duties.

Proposed Amendments to the Constitution and By-Laws—During the last year a Special Committee on Revision of the Constitution and By-Laws was appointed. This committee will submit a printed report to the House

of Delegates, with a supplementary report, containing additions, deletions, and alternative procedures. In view of the fact that the revision comprehends a survey of all the provisions of the Constitution and By-Laws of our Association, the Council suggests that all the pending proposed amendments to the Constitution and By-Laws be again introduced at this session, and consideration thereof deferred until the next annual meeting, at which time the special committee's proposed amendments will also be taken up. Further, that any members of the Association having proposed amendments to offer, submit the same to the House of Delegates through one of its members, at this meeting.

Incorporation of the Association—Inasmuch as the Association is accumulating a reserve and for other reasons, it is the sense of the Council that incorporation of the Association at this time is desirable. For that reason the matter of incorporation is in progress and will be dealt with in the report of the Council.

Disposal of the Stock in Better Health—At the meeting of the Association in 1926 it was reported that Dr. William E. Musgrave had given outright to the Association 200 shares of the capital stock of *Better Health* magazine. This represented a gift at par value of the stock of \$20,000.

Doctor Parkinson on May 1, 1926, gave to the California Medical Association one share of stock of *Better Health* magazine. It seemed quite proper to accept the stock when it was offered. However, the ownership of this stock proved to be a source of division among members of the Association. There was to be considered the matter of possible secondary liability as such a stockholder, also that the stock was in fact a minority interest in the corporation. Finally the Council did not feel that the Association should retain possession of an interest presenting such dangerous possibilities. On the other hand, the *Better Health* corporation was established and controlled by medical men. After full consideration of the elements entering into the question, the Council decided to give the stock outright to the League for the Conservation of Public Health, the majority stockholder.

Formation of the Legislative Committee—For several years the California Medical Association has refrained from any activities with respect to medical legislation which affected the medical profession. Consideration of any action upon all such matters was delegated to the League for the Conservation of Public Health. The League guarded our interests exceedingly well. It watched critically all proposed legislation and action of all kinds which might affect organized medicine. The League deserves the sincere thanks and appreciation of all members of this Association. In the last year it has been borne in upon the Council that our procedure was not standard and sometimes led to embarrassment. Accordingly the Council resolved to form a Legislative Committee, whose duty it should be to keep in touch with legislation affecting the medical profession. This committee though organized late has done a tremendous amount of effective work, has kept a member and a paid observer at Sacramento who have been in constant touch both with the committee and the work of the legislature.

The work of the committee has been satisfactory and successful in accomplishment of the duties for which it was organized.

The Council sees no reason why the C. M. A. cannot conduct its own business before future legislatures conservatively and ethically and with dignity and success.

The report of the Council was referred to the Reference Committee.

VI. Report of the Committee on Scientific Program—Dr. Emma W. Pope of San Francisco, chairman of the Committee on Scientific Program, read the following report:

As chairman of the Committee on Scientific Program I have the honor to report the signal success of both section officers and of the Los Angeles Arrangements Committee.

To the Arrangements Committee we are indebted for the speakers of the general sessions. To section officers for their unusual programs and for the invited guests. Hubert Work, Secretary of the Interior, and Hugh Cummings, Surgeon-General of the United States

Public Health Service, are addressing the Thursday session. Our disappointment is keen that Dr. Howard A. Kelly, one of America's foremost surgeons, has been compelled to forego his attendance.

From Chicago has come James B. Herrick and W. A. Evans; from Rochester, D. C. Balfour and Charles G. Sutherland; from Cleveland Clinic, H. J. Gerstenberger and R. S. Dinsmore; from the Queen State of the South, Stuart McGuire; and from our sister state of Utah, George Middleton.

The participation by our guests of the discussion of section papers will heighten the interest materially.

Most helpful this year was the combined meeting of the Program Committee with section officers at Santa Barbara on January 30. The consideration of a skeleton program disposed of any conflict of hours or rooms. The reading of completed section programs eliminated the possibility of any member presenting more than one paper and in a few instances effected transfer of speakers to programs more allied to the subject of the papers.

The section secretary is responsible for the program of his section. He must needs be a man of rare tact to persuade the unwilling but able member that he has something of value to present, and to evade the loquacious and unthinking; he must have character to avoid personal bias, and be moved by merit alone in the selection of his speakers. That section secretaries often serve but one year and barely learn their duties when they pass to another, increases our admiration of their accomplishments.

In many cases we found that secretaries have assumed office without any record of the programs of their predecessors. During the year, therefore, the secretaries of all sections have been furnished folders from the state office containing full information of former programs for a foundation record to which they can easily add their report and their recommendations that future incoming officers might begin their term of service with a tangible record of previous action and programs.

The usual meeting at a luncheon of all section officers, both incoming and outgoing and of all members of the Program Committee will be held this year on Wednesday, at which time policies for bettering the programs will be discussed. To all these section officers and to the Arrangements Committee of Los Angeles, the unqualified thanks of the California Medical Association for the splendid program of 1927 is heartily accorded.

The report of the Committee on Scientific Program was referred to the Reference Committee.

NOTE: The president expressed the disappointment of the Association on account of the absence of Dr. Howard Kelly, and announced that Dr. Chester Rowell and Dr. W. W. Campbell would take the place on the program.

VII. Report of the Auditing Committee—Dr. Morton R. Gibbons, chairman of the Auditing Committee, read the audit of accounts as submitted by Hugh Ross.

The report of the Auditing Committee was referred to the Reference Committee.

VIII. Report of the Secretary—Emma W. Pope, secretary, read the following report:

Nineteen hundred and twenty-six showed the usual growth of the California Medical Association, numerically and financially. Four thousand three hundred and twenty-seven members were recorded. On April 1, 1927, every county society had been reported and 3833 members were in good standing; almost eight-ninths of the total membership. Such promptness reflects both the interest of the members and of the county secretaries. Many who, through sentiment or economy had retained membership in the county originally joined, were transferred to the county of their present residence or business in compliance with the proposed amendment to our Constitution. The loss by death was heavier than for many preceding years; men prominent as officers of our Association and men high in the esteem and in the affection of the members were among those taken. Their places will not easily be filled.

Financially the year's record shows equal gain. That the Association was able to add to its cash surplus was

due to two main causes: first, that the editor of CALIFORNIA AND WESTERN MEDICINE accepted no salary; and second, that there was a decrease in the expenditures of the legal department. Many cases, as the report of the legal counsel shows, yet remain to be disposed of, and the increased activities of the Association in other lines may not enable us to make so good a showing this next year. Should the present dues, which at best are a hardship to few members of the Association be continued—even with the services of a paid editor—the California Medical Association will, though more slowly, accumulate a working capital sufficient to permit the governing body of our Association to progress as an association of our size should. To provide for a regular saving, the custom now followed by many state associations of regularly budgeting as a surplus fund \$1 or \$2 of the annual dues might with benefit be adopted by the California Medical Association.

The Placement Bureau becomes better known yearly to our members. It would be interesting to have a record of the number of successful doctors who owe their start medically to positions secured through the state office. It has been our conscientious effort to fit the applicant to the position, that every doctor or hospital or business firm that has secured an assistant through the state office should be encouraged to become a regular user of the society's Placement Bureau. During 1926 thirty-five physicians and ten nurses and stenographers were successfully placed.

The Extension Service has helped to keep up interest in county society meetings. Names of new speakers and new titles to talks were added to the 1925 list. Since each county secretary makes his own selection of speakers and extends his own invitation, we have no way of recording the actual results. We can only feel this service is valuable alike to county societies and to program members, since the list of speakers increases yearly and monthly reports of county secretaries record regularly the talks by invited guests.

No change in the personnel of the office force nor of its management has been made during 1926. Each assistant is responsible for assigned work, while all are familiarized with the duties of the others that the routine of the office may never suffer by reason of the enforced absence of any assistant.

County secretaries have furnished full and accurate membership records, certifications of delegates and monthly society reports. The interest and cooperation of county officers are a never ending surprise. Such fulfillment of the duties of their office takes time, thought and system and encroaches on the leisure of busy practitioners. No annual report of the state secretary is complete without grateful acknowledgment of this splendid service, and thanks to the secretaries of the forty county societies that together form the California Medical Association.

The report of the secretary was referred to the Reference Committee.

IX. Report of the Editors—Dr. George H. Kress, on behalf of the editors, presented the following brief report:

The death of Doctor Musgrave placed upon the Council of the society the necessity of placing the journal under proper editorial supervision. In an emergency Doctor Pope and myself were appointed. It is our hope to carry on this journal on the same high standard as set by Doctor Musgrave, and with your aid we hope to accomplish this as far as is in our power. We have no special report to offer because our career has been too brief to make a detailed report possible.

Everything Doctor Musgrave did in placing this journal on such a high plane—the ideals he laid down—those are the ideals of the Council and of the editors, and those standards we pledge ourselves to uphold insofar as it is possible.

The report of the editors was referred to the Reference Committee.

X. Report of the General Counsel—Mr. Hartley F. Peart of San Francisco, general counsel for the Asso-

ciation, gave a brief outline of the work of the legal department of the Association. The general counsel referred to consultations with and advice to the administrative officers, personal attendance at meetings of the Executive Committee and the Council, and opinions both verbal and written, rendered in connection with the society's increased activities. Mr. Peart spoke briefly of extensive examination of the law and decisions in regard to the use of county hospitals for able to pay patients. The attorney also referred to the examination of the code provisions and authorities undertaken at the direction of the Council in connection with the proposed incorporation of the Association. This report covered the question of procedure necessary to be followed in the matter of incorporation. On this topic he discussed briefly the different features of the existing incorporations of the Los Angeles County Medical Association and of the San Francisco County Medical Society, the first being a general incorporation including all the members as members of the incorporation, the second being an incorporation of the directors and officers of the society representing the general membership. In his report the attorney favored the incorporation of the councilors and officers of the California Medical Association, all being members of the Association, as the most desirable form to be used. He also pointed out the necessity of amending the existing constitution to accomplish incorporation, and briefly touched upon the various conditions making it desirable to incorporate. The general counsel then made a complete report of the cases and threatened cases of alleged negligence in charge of his department under the old Medical Defense and Indemnity Defense Fund, showing a rapidly decreasing volume of this work, and outlined the purposes of the Medical Society of the State of California and the present status of that organization.

President William T. McArthur commended Mr. Peart on his report, which was referred to the Reference Committee.

XI. Unfinished Business—1. Amendments—Dr. George H. Kress, chairman of the Committee on Revising the Constitution, stated that the proposed Model Constitution had been presented to all members and stated that it would not be submitted tonight, as it was the desire that at the next meeting of the House of Delegates any alternative proposition might be submitted by any members; that all pending amendments would lay over until the next year so that it did not seem desirable to attempt to act upon any amendments this year. He stated that the proposed constitution is somewhat more explicit than the Constitution and By-Laws under which the Association is at present working. Doctor Kress invited all members to submit any proposed amendments they considered desirable. Doctor Kress stated that at the next meeting of the House of Delegates the amendments which were considered last year for the first time would be presented in regular form.

On motion of Dr. George H. Kress, seconded by Walter B. Coffey, it was

Resolved, That consideration of all amendments to the Constitution and By-Laws lay over until the second meeting of the House of Delegates.

XII. Resolution No. 1. Honorary Members—Percy T. Phillips, Santa Cruz, presented the following resolution:

Resolved, That on account of devotion to duty and years of service to the California Medical Association, John King, Pasadena; R. F. Rooney, Placer County; and M. L. Moore, Los Angeles, be elected honorary members of the Association.

Resolution No. 1, Honorary Members, was referred to the Reference Committee.

Resolution No. 2. Secretary-Editor—Dr. W. B. Chamberlain, San Francisco, presented the following resolution:

Resolved, That the House of Delegates hereby calls the attention of the Council to the fitness of Dr. Emma W. Pope for the position of editor of the journal, and

suggests that the work of editor and secretary be handled by her, under the title of Secretary-Editor.

Resolution No. 2, Secretary-Editor, was referred to the Reference Committee.

XIII. Reading and Adoption of Minutes—The minutes of the session were then read and, there being no objection, were approved.

XIV. Adjournment—There being no further business the House adjourned to meet at 8 p. m. Wednesday, April 27, 1927.

MINUTES OF THE HOUSE OF DELEGATES

Second Session

Held in the Music Room, Hotel Biltmore, Los Angeles, California, Wednesday, April 27, 1927, at 8 p. m.

I. Call to Order—The meeting was called to order by the president, William T. McArthur of Los Angeles, who announced that he had asked the president-elect, Percy T. Phillips of Santa Cruz to take the chair for the business part of the meeting. The president-elect, Percy T. Phillips, then took the chair and directed the secretary to call the roll.

II. Roll Call—The secretary called the roll. Doctor Duffield asked for a ruling from the Chair with reference to the seating of delegates who were not present at the first session in place of alternates seated at the first meeting. Dr. Percy T. Phillips, presiding, advised that there had been two customs in the House of Delegates regarding this matter; that in times past it had been settled in both ways, and that if there was a contest tonight the Chair would not decide the question, as there was no rule in Roberts' Rules of Order to cover the situation, but would allow the House to make its own rule by taking the matter up by vote and excluding contestants from such vote.

Dr. Michael Creamer, delegate from Los Angeles County, being present answered the roll call. Dr. William Duffield stated that Doctor Creamer was not present at the first session and therefore moved that he be not seated. No second to the motion. The Chair advised that Dr. Harry M. Voorhees, alternate, had been seated for Doctor Creamer at the first session, and that at the first meeting of the House of Delegates six delegates from Los Angeles County were absent and six alternates were seated in their places, and that a ruling was necessary as to which of these should represent Los Angeles County. Dr. Harry Voorhees not responding to his name, the Chair announced that as Doctor Voorhees was absent, and Dr. Michael Creamer was present, there was no contest and Dr. Michael Creamer was seated.

The Chair then called the names of the alternates seated at the first House of Delegates, and the names of the delegates for the places so filled by the said alternates and asked if there were any alternate present who wished to contest the seating of his delegate. Each of said alternates stated that he did not desire a seat, whereupon such delegates were seated.

The secretary then stated that ninety-five (95) delegates were present, and the Chair announced a quorum present.

III. Resignation of Delegate—The following letter from Dr. T. Henshaw Kelly, San Francisco, submitting his resignation as delegate was read:

"Please accept my resignation as delegate from the San Francisco County Medical Society to the 1927 session of the California Medical Association, to take effect immediately."

Dr. A. S. Keenan, San Francisco, moved that the resignation of Dr. T. Henshaw Kelly be accepted; such motion being seconded by Dr. Victor Vecki, San Francisco; whereupon said motion was put and unanimously carried.

IV. Place of 1928 Meeting—The Chair announced that the Council at its meeting held in the afternoon had unanimously selected Sacramento as the place of the annual meeting for 1928; that the date of the meeting would be decided and announced later.

V. **Report of the Arrangements Committee**—Dr. William Duffield, chairman of the Arrangements Committee, stated he had no report to make for the committee.

VI. **Election of Officers**—The chairman declared that the next order of business was the election of officers and appointed as tellers Joseph M. King, Los Angeles; R. A. Cushman, Orange; and W. E. Lilley, Merced.

1. **President-Elect**—The Chair announced that nominations were in order for president-elect. Dr. William H. Kiger of Los Angeles was nominated for president-elect by Fitch C. E. Mattison of Los Angeles; such nomination being seconded by Robert Pollock, San Diego; Oliver D. Hamlin, Oakland; and J. Hunt Shephard, San Jose.

Dr. George Dock of Pasadena was nominated for president-elect by Henry Ullmann of Santa Barbara; such nomination being seconded by William E. Chamberlain, San Francisco.

Philip Stephens of Los Angeles moved that the nominations be closed; such motion being seconded by Oliver D. Hamlin of Oakland.

Lloyd Bryan of San Francisco then made a point of order that the vice-president should be acting in the place of the president and not the president-elect, whereupon Chairman Percy T. Phillips announced that under common parliamentary usage and practice the president being present and on the platform had the right to call any member of the House of Delegates to preside during portions of the meeting, and so ruled.

There being no further nominations the Chair announced that the House would proceed to ballot. Ninety-five ballots were cast, Dr. William H. Kiger receiving seventy-eight votes and Dr. George Dock receiving seventeen votes.

On motion of Henry Ullmann, seconded by William H. Chamberlain and unanimously carried, the vote was made unanimous for William H. Kiger. The Chair then declared William H. Kiger elected president-elect for the year 1927-28.

2. **Vice-President**—The Chair announced that nominations were in order for vice-president. Thomas Henshaw Kelly of San Francisco was nominated for vice-president by I. W. Thorne of San Francisco; such nomination being seconded by John C. Yates of San Diego.

Clarence G. Toland of Los Angeles moved that the nominations be closed; such motion being seconded by Oliver D. Hamlin; and the secretary instructed to cast the ballot. The secretary cast the ballot, and the Chair declared Thomas Henshaw Kelly elected vice-president for the ensuing year.

VII. **Councilors**—The Chair announced that election of councilors was the next order of business.

1. **Councilor First District**—Luell C. Kinney, San Diego, was nominated by John C. Yates, San Diego, as councilor for the First District, to succeed himself. The nomination was seconded by Henry Ullmann, who then moved that the nominations be closed, and the secretary instructed to cast the ballot. The secretary cast the ballot, and the Chair declared Luell C. Kinney elected councilor for the First District for the ensuing three years.

2. **Councilor Eighth District**—Junius B. Harris of Sacramento was nominated by Charles B. Jones, Sacramento, as councilor for the Eighth District, to fill the unexpired term of Doctor Parkinson. The nomination was seconded by Harlan Shoemaker, Los Angeles; Robert Day of Los Angeles and Robert Peers, Colfax.

Fred R. Fairchild of Woodland was nominated by John H. Graves of San Francisco. The nomination was seconded by Alexander S. Keenan, San Francisco.

There being no further nominations the Chair announced that the House would proceed to ballot. Ninety-three ballots were cast; Junius B. Harris receiving fifty-two and Fred Fairchild forty-one. The Chair announced that Junius B. Harris having received the majority of the votes cast was elected councilor for the Eighth Dis-

trict to fill the unexpired term of Dr. James H. Parkinson, which term expires in 1928.

3. **Councilor-at-Large**—Morton R. Gibbons of San Francisco was nominated by William E. Chamberlain, San Francisco, as councilor-at-large to succeed himself; such nomination being seconded by Henry Ullmann, who then moved that the nominations be closed, and the secretary instructed to cast the ballot. The secretary cast the ballot, and the Chair declared Morton R. Gibbons elected councilor-at-large for the ensuing three years.

4. **Councilor Second District**—The Chair announced that the election of William H. Kiger as president-elect had left a vacancy in the Council for the unexpired term ending 1928.

William Duffield of Los Angeles was nominated by Joseph M. King, Los Angeles, as councilor for the Second District; such nomination being seconded by George L. Cole of Los Angeles.

William H. Gilbert, Los Angeles, was nominated by John V. Barrow, Los Angeles; such nomination being seconded by A. C. Germann, Los Angeles.

There being no further nominations the Chair announced that the House would proceed to ballot. Ninety-three votes were cast, William Duffield receiving forty-eight and William H. Gilbert forty-five. The Chair announced that William Duffield having received the majority of the votes cast was elected councilor for the Second District to fill the unexpired term of William H. Kiger.

Dr. William H. Gilbert moved that the vote be made unanimous for William Duffield, which motion was seconded by John V. Barrow and unanimously carried.

VIII. **Member of the Program Committee**—The Chair announced that election of a member of the Program Committee was the next order of business.

Robert V. Day of Los Angeles was nominated by Joseph Catton of San Francisco as a member of the Scientific Committee for the ensuing three years; such nomination was duly seconded.

There being no further nominations the Chair announced that the nominations were closed and instructed the secretary to cast the ballot. The secretary cast the ballot, and the Chair declared Robert V. Day elected member of the Scientific Program Committee for the ensuing three years.

IX. **Delegates to the A. M. A.**—The Chair announced the next order of business was the election of delegates to the American Medical Association and stated that nominations were in order. The Chair stated that in electing delegates it is understood that their terms do not begin until after the adjournment of the next meeting of the House of Delegates of the American Medical Association at Washington.

Dudley Smith of Oakland was nominated by Joseph Catton of San Francisco as delegate to the American Medical Association; such nomination being seconded by Oliver D. Hamlin.

Clarence Toland of Los Angeles moved that the nominations be closed and the secretary instructed to cast the ballot, which motion was duly seconded. The secretary cast the ballot, and the Chair announced Dudley Smith elected delegate to the American Medical Association for the 1928-29 sessions of the House of Delegates.

Albert Soiland of Los Angeles was nominated by Joseph M. King of Los Angeles as delegate to the American Medical Association; such nomination being seconded by William H. Gilbert of Los Angeles and Victor Vecki of San Francisco.

Henry Ullmann of Santa Barbara moved that the nominations be closed and the secretary instructed to cast the ballot, which motion was duly seconded. The secretary cast the ballot, and the Chair announced Albert Soiland elected delegate to the American Medical Association for the 1928-29 sessions of the House of Delegates.

Martha Welpton of San Diego was nominated by Mott H. Arnold of San Diego as delegate to the American Medical Association; such nomination being seconded by

Henry Ryfkogel of San Francisco and John V. Barrow, Los Angeles.

William H. Gilbert, Los Angeles, then moved that the nominations be closed and the secretary instructed to cast the ballot. The secretary cast the ballot, and the Chair declared Martha Welpton elected delegate to the American Medical Association for the 1928-29 sessions of the House of Delegates.

X. Alternates to the A. M. A.—Walter B. Coffey of San Francisco was nominated by Harlan Shoemaker of Los Angeles as alternate to Dudley Smith; such nomination being seconded by Joseph Catton, San Francisco.

There being no further nominations the Chair announced that the nominations were closed and instructed the secretary to cast the ballot. The secretary cast the ballot, and the Chair declared Walter B. Coffey elected alternate to Dudley Smith for the 1928-29 sessions of the House of Delegates of the American Medical Association.

William H. Gilbert, Los Angeles, was nominated by Walter B. Coffey, San Francisco, as alternate to Albert Soiland; such nomination being seconded by William H. Chamberlain, San Francisco.

There being no further nominations the Chair announced that the nominations were closed and instructed the secretary to cast the ballot. The secretary cast the ballot, and the Chair declared William H. Gilbert, Los Angeles, elected alternate to Albert Soiland for the 1928-29 sessions of the House of Delegates of the American Medical Association.

Eleanor Seymour, Los Angeles, was nominated by Fitch C. Mattison, Los Angeles, as alternate to Martha Welpton; such nomination being seconded by Martha Welpton, San Diego, and Joseph M. King, Los Angeles. Henry Ullmann moved that the nominations be closed, and the secretary instructed to cast the ballot, which motion was duly seconded. The secretary cast the ballot, and the Chair declared Eleanor Seymour elected alternate to Martha Welpton for the 1928-29 sessions of the House of Delegates of the American Medical Association.

XI. Report of the Reference Committee—Harlan Shoemaker, chairman of the Reference Committee, presented the following report:

1. Address of the President—President McArthur's address on the Evolution of Organized Medicine reviews this subject from its foundation to our present time. It touches succinctly upon the advances of the physician and surgeon, which have brought about our greatest thought of "Safety First" in medical standardization, and deals with the effect of health publicity, physical examinations, and the vast amount of public misinformation that has been propagated by uncensored publicity.

The address is recommended to your careful study and entertainment.

On motion of Harlan Shoemaker, duly seconded, the foregoing section of the report of the Reference Committee was unanimously adopted.

2. Report of the President to the House of Delegates—The president's report to the House of Delegates has brought before you again the disparity of the number of members in organized medicine in comparison with those in our Association. He stresses the relation of the hospital staff and county medical meetings, the supporting of standardized hospitals, the participation in questions of public health, the necessity for eternal vigilance in the protection of those industrially injured and cautions you against the too great possibilities of state medicine and socialism.

On motion of Harlan Shoemaker, duly seconded, the foregoing section of the report of the Reference Committee was unanimously adopted.

3. Address of the President-Elect—Doctor Phillips has given you a slogan "None but a physician can think as a physician." This is particularly true in organized medicine in the dissemination to the public of practical knowledge on hygiene and public welfare. No one can feel the sentiment of the public better than the doctor in a small community. The possibilities of ethical advertising have been delicately touched, and a safe bridge has been pointed out from duty to desire.

With Doctor Phillips' great practical knowledge of the

Medical Practice Act, greater prosecution of quacks has been made possible than in any previous time in the history of the state. A great number of amendments to the Medical Practice Act clarifying and interpreting it have been introduced under his direction, particularly so at this last session of the legislature, and I am happy to state on the doctor's behalf that all bills so introduced by the State Board of Medical Examiners were unanimously passed and signed by the Governor.

This in the humble estimation of your committee makes Doctor Phillips one of the outstanding men of our Association.

On motion of Harlan Shoemaker, duly seconded, the foregoing section of the report of the Reference Committee was unanimously adopted.

4. Report of the Chairman of the Council:

(a) Deaths of Doctor Parkinson and Doctor Musgrave—Regarding the deaths of Doctor Parkinson and Doctor Musgrave, the committee calls your attention to the fact that the Council has passed and published in the official journal the resolutions regarding the passing of these two most excellent men and recommends that the House of Delegates endorse the action of the Council.

At the request of the chairman of the Reference Committee the privilege of the floor was given Dr. John H. Graves of San Francisco, who then read the following biography and eulogy on the late Dr. James H. Parkinson, written by his lifelong friend and associate, Dr. William Ellery Briggs:

(N. B. This eulogy is printed in full in another section of the journal and will, therefore, be omitted at this point.)

The House of Delegates and members of the Association present at the meeting paid a last tribute to Dr. James H. Parkinson by standing during the reading of the account of his life and work.

The Reference Committee recommends the eulogy to the attention of the editor.

On motion of Harlan Shoemaker, duly seconded, the foregoing section of the report of the Reference Committee was unanimously adopted.

(b) Report of the Committee on Scientific Program—The combined meeting of the Program Committee with section officers on January 30 was largely responsible for the excellence of the program as given in Los Angeles at the annual meeting, and was productive of the greatest cooperation.

On motion of Harlan Shoemaker, duly seconded, the foregoing section of the report of the Reference Committee was unanimously adopted.

(c) Annual Assessment—The Reference Committee suggests that the recommendation of the Council be accepted and the annual dues set at \$10 for 1928, and so moves.

On motion of Harlan Shoemaker, duly seconded, the foregoing section of the report of the Reference Committee was unanimously adopted.

The remainder of the report of the Council we commend to you for your careful study and approbation, as the financial status of the Association is entirely satisfactory.

On motion of Harlan Shoemaker, duly seconded, the foregoing section of the report of the Reference Committee was unanimously adopted.

5. Report of the Auditing Committee—The Reference Committee suggests that the report of the Auditing Committee receive the endorsement of the House of Delegates, and so moves. This report is on file in the secretary's office, accessible to the membership at any time.

On motion of Harlan Shoemaker, duly seconded, the foregoing section of the report of the Reference Committee was unanimously adopted.

6. Report of the Secretary—The Reference Committee recommends the report of the secretary for approval of the House of Delegates, and so moves for its adoption.

On motion of Harlan Shoemaker, duly seconded, the

foregoing section of the report of the Reference Committee was unanimously adopted.

7. **Report of the Editors**—The Reference Committee recommends the endorsement of the report of the editors, and so moves.

On motion of Harlan Shoemaker, duly seconded, the foregoing section of the report of the Reference Committee was unanimously adopted.

8. **Report of the Attorney**—The report of the attorney is commended to you for your most thoughtful consideration and has the hearty approval of the committee, and the committee so moved.

On motion of Harlan Shoemaker, duly seconded, the foregoing section of the report of the Reference Committee was unanimously adopted.

9. Resolutions:

(a) **Honorary Membership**—The Reference Committee recommends the adoption of the resolution presented by Doctor Phillips to grant honorary membership to the persons of John King, Pasadena; R. F. Rooney, Placer County; and M. L. Moore, Los Angeles, and so moves.

(b) **Secretary-Editor**—The resolution presented by Dr. W. E. Chamberlain requesting that the House of Delegates create a position of secretary-editor and recommending Dr. Emma W. Pope, the Reference Committee recommends it be referred to the Council for their consideration, and so moves.

On motion of Harlan Shoemaker, duly seconded, the foregoing sections on honorary membership and secretary-editor was unanimously adopted.

Harlan Shoemaker, chairman of the Reference Committee, then moved that the report of the Reference Committee be approved as a whole, which motion was duly seconded and unanimously carried.

XII. **Unfinished Business**—Dr. George H. Kress on behalf of the Special Committee on Revision of the Constitution and By-Laws then presented the following amendments to the Constitution and By-Laws:

EDITOR'S NOTE: The various amendments to the Constitution and By-Laws were referred to the special committee, with instructions to compile the same. These will be printed in a later issue of CALIFORNIA AND WESTERN MEDICINE.

XIII. **Resolutions of Appreciation**—Dr. Robert A. Peers, Colfax, presented the following resolution of appreciation for the success of the 1927 annual meeting:

Resolved, That the thanks of the California Medical Association be tendered to the Los Angeles County Medical Society, the Committee on Arrangements, and the management and staff of the Biltmore Hotel for their generosity, hospitality and elaborate entertainment, which have made the present session so enjoyable, and also the press of the city of Los Angeles for its cooperation and liberality in the interest of constructive publicity.

The resolution was duly seconded and unanimously carried.

Dr. Joseph King, Los Angeles, presented the following resolution of appreciation to invited guests:

Resolved, That the secretary of our Association be instructed to extend to W. W. Campbell, W. A. Evans, D. C. Balfour, Hubert Work, Hugh H. Cumming, James B. Herrick, Stuart McGuire, H. J. Gerstenberger, George N. Middleton, Charles G. Sutherland and Chester N. Rowell, a letter expressing our most profound thanks for coming before us and having spoken to us on scientific subject and having done so much to make this meeting a success; and also to express to Dr. Howard Kelly our regret of his inability to be with us.

The resolution of appreciation of invited guests was duly seconded and unanimously adopted.

XIV. **Presentation of the President**—At this point President McArthur took the chair and appointed Morton R. Gibbons, San Francisco, and Harlan Shoemaker, Los Angeles, to escort the incoming president to the chair. The president then presented Percy T. Phillips to the House as president of the Association for the ensuing

year. Doctor Phillips commended the outgoing president and thanked him for his efficiency and unfailing kindness and courtesy to all, and expressed appreciation of the honor conferred upon him in being elected president of the California Medical Association.

XV. **Presentation of the President-Elect**—The president appointed Walter B. Coffey and Robert V. Day to escort the incoming president-elect to the platform. William H. Kiger was then presented to the House as president-elect of the Association for the ensuing year. Doctor Kiger assured the House of his deep appreciation of the honor shown by his election as president-elect.

XVI. **Reading and Adoption of Minutes**—The minutes of this session were then read and, there being no objection, were unanimously approved.

XVII. **Adjournment**—There being no further business the House adjourned to meet in Sacramento in 1928.

Ready-Made Bibliographies—In these days of Service (with a Capital S), it is not to be wondered at that enterprising minds have conceived the idea of supplying for writers of medical papers complete bibliographies of the subject treated, and abstracts of the literature dealing with the topic in question. Some arguments can be advanced in favor of this sort of service. More complete bibliographies can doubtless be provided than could be got together by the average writer. There is a saving of labor. Once the agency which supplies such service gets fairly under way, it will have on hand bibliographies and abstracts on all the usual themes, and can dispense them with utter impartiality, so that one writer is as advantageously situated as another, so far as the background culled from the literature is concerned.

Yet in spite of these recommendations, the journal views with alarm this opportunity to buy literary material ready made. In the first place, if the system is widely employed there will be exactly the same bibliography at the end of every article which deals with a given subject. The reader will glance at the long and imposing list of references and will immediately discount its value. His disregard for lists of references will include not only those which were bought and paid for, but will eventually extend to those which represent real effort on the part of the writer. Soon the bibliography appended to an article will have as much weight as the "testimonial" which accompanies the advertisement of a proprietary remedy. In the second place, we doubt if an author can get from a series of abstracts a true appreciation of the opinion of other writers. He would do far better to read carefully a few original articles, than to try to summarize the opinions of a large number from abstracts alone. In the third place, we are sufficiently old-fashioned to believe that true scholarship should depend upon the consultation of original sources and should be based upon honest, conscientious, painstaking labor. A really meritorious communication cannot be written otherwise.—*Boston Medical and Surgical Journal*.

Meetings of the American Urological Association, Western Branch will be held July 5 to July 7 as follows:

July 5—Portland, Oregon—Clinics at the St. Vincent's Hospital.

July 6—Seattle, Washington—Clinics at the Providence Hospital in the morning, and a scientific meeting in the afternoon.

July 7—Vancouver-Canada—Clinics at the Vancouver General Hospital.

"Why are you not working with the rest?" asked the lady visiting the asylum.

"Oh, I'm daft," was the candid reply.

"But surely daft people can work," argued the lady.

"Yes," retorted the inmate, "but I'm not so daft as that."

—*Colorado Med.*

UTAH STATE MEDICAL ASSOCIATION

W. R. CALDERWOOD, Salt Lake.....President
 E. H. SMITH, Ogden.....President-Elect
 FRANK B. STEELE, Salt Lake.....Secretary
 J. U. GIESY, 701 Medical Arts Building, Salt Lake.....
Associate Editor for Utah

LIGHT AND HEAT RAYS

Light and heat, like other manifestations of force, have two effects—the one constructive, and the other destructive. That is the point worthy of remembrance. Actinic rays of 2900 Angstrom units and up to 3900 units are constructive. From 2900 to 1800, or even to 1200, they are increasingly destructive. And in this fact lies the explanation of the seeming paradox. Because the average radiant light contains a fairly large per cent of actinic emanations between 2900 and 3900 A. U., and the average actinic ray apparatus emits too large a per cent of the short or destructive actinic elements.

In the light of modern investigation it now appears that the tan developing under either actinic ray therapy or true heliotherapy is a protective reaction of the body aimed at a screening out of the short rays, and that light sickness so called is but a protein reaction indicative of superficial cell destruction and absorption entirely akin to the shock reaction following any type of destructive burn.

What the profession now needs would appear to be an apparatus which will give the long or constructive ray in a larger per cent, while at the same time it reserves its short ray apparatus for its purely local destructive and bacteriacidal effects.

STATE ASSOCIATION MEETING IN JUNE

We trust that every member of the state association will make a serious attempt to attend the 1928 annual meeting of the Utah Medical Association in June.

Whether a man leads or lags in his profession depends largely on whether he mentally holds himself a tip-toe. To keep abreast of modern progress and of the knowledge of our craft and so maintain a high medical standard requires an open mind and a careful selection of the best advances in medicine.

Conventions may not per se teach the average attendant much. Much that he hears necessarily must be rehash of what he already knows. But there is an element in nature known as friction. And it matters little whether it be friction of two opposing surfaces or the oscillation of integral molecules of a substance, or of two individual minds, it produces a reaction whenever it occurs.

Therefore we feel that the greatest good that comes to the attendants of a convention comes from the "friction" with the minds of others engaged in the same pursuits. There is a warming up and an interest-quickenning effect about it. The same thing applies to local societies and to review groups. They accomplish two purposes—they show the individual what he knows and, as it were, solidify his knowledge. And what is more important, show him what he does *not* know and so demonstrate his weak

points and indicate what needs bolstering. Our fellow-men trust their physical welfare to us from birth to death. It behooves us to keep abreast of all knowledge that will enable us to do our professional work to better advantage. Our societies and their meetings are efficient aids to that end.

Program of the June Annual Meeting—Chairman John Z. Brown of the State Association Committee on Scientific Program has been hard at work getting into form a program for our June meeting. The following details should be of general interest:

The week of June 20 to 25 should be one which the members of the state association should encircle with red, in their appointment books. This year there will be three days of postgraduate work, beginning Monday, June 21. Chairman Phipps of the postgraduate committee announces that the program is complete.

Palmer Findley of Omaha is coming to discuss the following subjects: (1) Puerperal Infection; (2) Uterine Hemorrhage; (3) Hemorrhage from the Pregnant Uterus; (4) Cancer of the Uterus; (5) Extrauterine Pregnancy. Dr. Emmet Rixford of San Francisco will discuss Fractures and Dislocations, which are injuries so important in the field of industrial medicine.

Following the three days of postgraduate work will come the state association meeting.

Robert Osgood of Harvard will talk on Orthopedics.

Harold L. Amos of Johns Hopkins will speak on Internal Medicine.

Dean Lewis of Johns Hopkins will discuss surgical topics.

Henry Walsh Gibbons of San Francisco will take up the problems of insurance.

Frank Hinman of San Francisco will speak on Urology.

Howard T. Plank of San Francisco will give a series of lectures on Physiotherapy.

Doesn't that list give an anticipatory thrill as you read?

In addition, each day there will be two hours of laboratory demonstrations and talks.

On Friday the 24th will be the annual banquet. An excellent dinner and a big time is promised. It will be a get-together event which will make you glad you came.

Never, we feel, has a better program than this been offered. Get behind it with your presence and make the committees that have arranged it feel that their time has been well spent.

Salt Lake Society Elects Delegates—Twelve delegates were elected at a meeting of the Salt Lake County Medical Association Monday night at the University of Utah to attend the state association meeting to be held here in June, it was announced by Dr. M. M. Critchlow, secretary.

Those elected were Drs. J. P. Kerby, W. G. Schulte, F. A. Goeltz, Foster J. Curtis, W. F. Beer, Ralph Pendleton, J. J. Galligan, S. D. Calonge, E. D. LaCompte, Roy Groesbeck, J. Z. Brown, and C. M. Benedict.

Death of Dr. Warren Benjamin—Dr. Warren Benjamin, 56, one of Utah's foremost physicians and surgeons, died at 6:15 o'clock Saturday evening, following a brief illness.

For twenty-seven years Doctor Benjamin was chief physician and surgeon of the Denver & Rio Grande Western Railroad. He had also been chief surgeon for the Utah Railway Company and the United States Fuel Company since coming here in 1902.

Doctor Benjamin had been on the medical staff of St. Mark's Hospital since he first came to Salt Lake.

Born at Kingston, New York, February 5, 1871, Doctor Benjamin attended the University of New York. In 1900 he was graduated from an internship at Bellevue Hospital, and removed to Denver.

Surviving Doctor Benjamin are his widow, Mrs. Gertrude E. Benjamin, and a brother, Samuel C. Benjamin of Huguenot Park, Stanton Island, New York. An aunt, Mrs. F. B. Dennis of Kingston, New York, also survives.

Holy Cross Hospital Clinical Association Meeting—At the meeting of May 16, Dr. B. E. Bonar gave a review

of recent literature on scarlet fever. Dr. Claude Shields presented a case of severe burn with skin grafting in which galvanism was used to soften resulting scar tissue, and actinic ray therapy to speed up and improve epithelization. T. W. Covington presented an interesting paper on rural versus urban health. This is the last meeting for the spring term.

Salt Lake County Medical Society Meeting of May 9—Sol G. Kahn took the chair and introduced the members who presented clinical cases.

W. G. Schulte read the history, physical, laboratory and x-ray findings on a patient with Kümmel's disease.

E. F. Root presented a patient with severe injury to right thigh caused by an explosion who had been treated for six months with various forms of treatment with apparent good result.

W. D. Donohoe discussed a patient who had suffered from fourteen attacks of iritis over a period of ten years, the focus being found in the teeth.

J. J. Galligan presented a patient with a second fracture of the left tibia, and also a patient with Perthe's disease.

F. B. Bailey read the history, physical, laboratory and x-ray findings on a patient who had an ulcer of the stomach with palpable tumor mass. Pathological specimen was presented and explained by T. A. Flood.

LaFayette P. Monson was unanimously elected to membership in the society.

Minutes of the Salt Lake County Medical Society, Salt Lake City—The regular meeting of the Salt Lake County Medical Society was held in the assembly room, Medical Building, University of Utah, April 25, 1927.

Meeting called to order at 8:10 p. m. by President W. G. Schulte. Forty-six members and three visitors were present.

Minutes of the previous meeting were read and accepted without correction.

R. O. Porter, dean of the Medical School, University of Utah, gave an address of welcome and announced the speakers.

L. L. Daines of the department of pathology and bacteriology gave a splendid talk on "Bacteriophage." He discussed the experiments of Darrell in diseases of the intestinal tract and the distribution of the bacteriophage. He also discussed the therapeutic possibilities.

This interesting talk was discussed by T. F. A. Morton, W. R. Tyndale, and R. O. Porter.

B. I. Burns of the department of anatomy gave a very interesting talk illustrated by lantern slides on the "Anatomy of the Hand," with particular reference to the bursae and the practical importance of their distribution in infections of the hand.

C. M. Benedict reported for the Committee on Public Health and Legislation and recommended a special committee be appointed to investigate the various county organizations doing medical work. The president appointed the following men for this committee: W. T. Ward (chairman), W. F. Beer, and H. B. Sprague.

Application for membership of Doctor Monson was read.

Delegates to the State Medical Association were nominated and the following men were elected:

Delegates—J. P. Kerby, F. J. Curtis, C. M. Benedict, R. W. Pendleton, W. G. Schulte, F. A. Goeltz, W. F. Beer, J. J. Galligan, John Z. Brown, E. D. LeCompte, S. D. Calonge, T. F. H. Morton.

Alternates—R. A. Groesbeck, F. B. Bailey, L. N. Ossman, H. T. Anderson.

Adjournment at 10:10 p. m.

M. M. CRITCHLOW, *Secretary*.

Weber County News—The graduation exercises of the nurses from the Dee Memorial Hospital training school were held the night of May 11.

Seventeen young women graduated in this class.

The program was in charge of W. H. Wattis, president of the hospital board of trustees.

Adam Bennion of Salt Lake was the speaker of the evening.

Following the formal program a dance was given to the graduating class and their friends at Bethanna Hall.

NEWS

International Health Institute—During the past few months the medical profession has been flooded with letters from the "International Health Institute, Inc.," 2061 Broadway, New York City. According to its "sales talk," the International Health Institute purposes to sell to the public a urinalysis and periodic physical examination service "supplemented with a complete course in body-building and rules of right living." While this is the nominal *raison d'être* of the concern, evidence is accumulating to confirm the suspicion that the International Health Institute, Inc., is primarily a promotion scheme. Letters are sent to physicians stating that the "institute" desires to establish "a resident physician and member of our Advisory and Hygiene Reference Board"; invites the physician to join and to purchase stock. It is stated that the first source of income is the service that is to be recommended by the International Health Institute in selling to the public a periodic physical examination and urinalysis, for which the institute will charge \$37.50, but it is explained that a greater opportunity for financial betterment will come from the activities of the International Health Institute in recommending to the lay subscribers that they use certain health foods; certain "approved exercising devices"; certain "hygienic appliances"; and certain books, all of which the institute will sell.—*Journal A. M. A.*, April 30, 1927, p. 1435.

Counties Freed of Bovine Tuberculosis—A new official order of the Bureau of Animal Industry, United States Department of Agriculture, adds four counties and several parts of counties to the extensive area already freed from bovine tuberculosis. The new counties are Knox County, Indiana; Hartnett County, North Carolina; Lawrence County, Pennsylvania; and Shelby County, Tennessee. Besides these new areas the Government recognizes also, as modified accredited areas, parts of three counties in the state of Vermont. The areas which have earned this recognition are that part of Washington County included in the town of Berlin, the part of Lamoille County included in the town of Johnson, and the part of Caledonia County included in the town of Peacham.

The bureau has also reaccredited other areas for an additional period of three years following completion of necessary tests. The reaccredited areas are Stanly and Stokes counties in North Carolina, and Ohio County in Indiana.

To obtain the recognition mentioned, the cattle of an area must be tested for tuberculosis by a state or federal veterinarian, and the result of the test must show not more than one-half of 1 per cent reactors, such animals, if any, being promptly disposed of by slaughter. The total number of counties in the United States on the modified accredited list is now 306.

The Scarlet Fever Patients—The Scarlet Fever Committee, established to control the use of the methods resulting from the discoveries of the Doctors Dick relating to scarlet fever, has thought it advisable to secure in Great Britain patents similar to those sought in this country for the protection of the manufacture and use of the methods and products. In view of alarm expressed in British medical publications, the Doctors Dick explain that they sought the most competent advice before embarking on the procedure. They reveal that they have not had and will not receive compensation personally from the patents; they have sought only to prevent the manufacture and sale of unworthy or inefficacious products in order that the public might be protected against commercial exploitation.—*Journal A. M. A.*, April 23, 1927, p. 1324.)

Examinations of candidates for entrance into the Regular Corps of the United States Public Health Service will be held at the following-named places on the dates specified:

At Washington, D. C., August 8, 1927.

At Chicago, Ill., August 8, 1927.

At New Orleans, La., August 8, 1927.

At San Francisco, Calif., August 8, 1927.

Candidate must be not less than 23 nor more than 32 years of age, and they must have been graduated in medicine at some reputable medical college, and have had one year's hospital experience or two years' professional practice. They must pass satisfactorily, oral, written, and clinical tests before a board of medical officers and undergo a physical examination.

Successful candidates will be recommended for appointment by the President, with the advice and consent of the Senate.

Requests for information or permission to take this examination should be addressed to the Surgeon-General, United States Public Health Service, Washington, D. C.

The American Orthopedic Association not only conferred upon the medical men of the state of California a signal honor by electing Dr. James T. Watkins of San Francisco president of their organization, but are continuing this recognition, and, for the first time in their history, are holding their annual meeting at Camp Curry in Yosemite Valley, June 13 to 17 inclusive. They invite all medical men, and particularly the Californians, to meet with them at that time and enjoy the benefits of the remarkable scientific program planned for that occasion.

The Arrangement Committee has arranged for special cars to leave the eastern coast on June 4 converging in Chicago, then a special train over the Santa Fe system will take them to the Grand Canyon of the Colorado from where, after spending two days, they will proceed to Los Angeles, arriving there June 10.

The Los Angeles Orthopedic Club will act as host, and will house the entire party at the Huntington Hotel as their guests. On Friday afternoon there will be a "dry clinic" at the hotel. That evening they will be entertained at a banquet at the hotel. On Saturday morning they will be taken to Hollywood where the orthopedists will have the opportunity to examine, first hand, the mechanism of moving-picture making. A luncheon is planned for Saturday noon. That evening they leave for Yosemite Valley, arriving in time for luncheon on Sunday.

Scientific sessions will be held on the afternoons of Monday, Tuesday, and all day Thursday. It is planned that Wednesday will be given up to an all-day trip to the Mariposa big trees, with luncheon at Wawona. The party leaves Friday night for San Francisco.

The San Francisco Orthopedic Club are planning a luncheon at the new San Francisco County Medical Society home with a "dry clinic" in the afternoon. This will be followed by an automobile sight-seeing trip about the city, returning the guests to their headquarters at the Fairmont and Mark Hopkins hotels in time for them to prepare to go to Chinatown for a Chinese banquet. Following the banquet a theater party has been arranged at one of the Chinese theaters.

The ladies of the party while in San Francisco are to be entertained at a luncheon on Saturday at the Olympic Country Club, and an automobile ride as the guests of the San Francisco Guild for Crippled Children.

On Sunday, June 19, the party will break up, some returning direct to the East; others are planning to tour the Northwest, and plans are made by others to go to Alaska.

The Bush Electric Corporation, Travers' Surgical Company, Frank F. Wedekind, and Miss Anna Laurence, manufacturer of nurses' uniforms, wish to announce that, in order to give better service, they are conducting a new display and salesroom located in the Medical Building, 909 Hyde Street, San Francisco. To their many friends and customers they extend a cordial invitation to inspect their new location.

Report on Tuberculosis in San Francisco—The death rate from Tuberculosis among the Chinese people

in San Francisco is over four and one-half times as large as for the rest of the city, according to a report received from the Department of Public Health last night.

The rates for 1926 from all forms of tuberculosis were: Chinese, 459 per 100,000; rest of city, 99.3 per 100,000.

The great difference in rates is apparent at every age, though the greatest difference is found at from 30 to 60 years of age.

"Recent investigation of mortality in Chinatown has revealed some startling differences between it and the rest of the city," said Doctor Hassler, "though the greatest problem among the Chinese is tuberculosis, which caused 24 per cent of Chinese deaths in 1926."

"That this problem is the city's problem as a whole is apparent when we remember the intimate contact that exists between the Chinese and the rest of the city."



Zoological Hospital and Research Institute, San Diego

Zoological Hospital and Research Institute—On the evening of Friday, April 1, the Zoological Hospital and Research Institute was formally dedicated. Approximately 125 physicians and scientific men were present. Dr. C. A. Kofoid, of the University of California, was the speaker of the evening.

This new building was sponsored by the Zoological Society of San Diego, and is the gift of Miss Ellen B. Scripps. It was designed to serve the following purposes:

1. It will be a hospital for the animals in the local zoo.
2. It will afford a wonderful opportunity for a systematic study of animal diseases. In addition, it will serve as a general laboratory where practicing physicians, research professors, and students of biology will find all the requisite equipment and necessary material for prosecuting their studies.

This building is ideally located. It sets back some distance from the main road, and is quietly secluded. It is on the grounds of the Zoological Society, thus giving easy access to the various animals in the zoo. On the lower floor are the following rooms: executive offices, library, autopsy room, technician's laboratory, and the general laboratory, with accommodations for ten or eleven men. On the upper floor there are, in addition to a hospital and isolation room, eleven special laboratories, each equipped for some particular type of work. An x-ray and dark room are also provided. An elevator is installed in the rear part of the building to convey animals to the hospital. A cold storage plant adjoins the autopsy room, so that materials may be kept until such time as needed.

In addition to all the essential equipment for routine work, there has been installed an x-ray, and a photomicrographic outfit. This will make possible almost any type of biological research.

Arrangements are being made with other zoos throughout the United States, whereby diseased tissues from autopsied animals will be collected at this institute. A laboratory technician is employed to prepare all this material for examination. By this means we hope in time to gather a large collection of pathological material, so that

anyone working on a particular problem will have available a remarkable collection of material for examination.

The scope of the building will not be confined to research in animal diseases. As stated above, the building is equipped for every branch of biological research, so that we hope in time to make this institute an important center of scientific research. Thus, the building will afford to advanced students and college professors an opportunity to continue their studies whenever they are in this part of the country. Many marine stations attract large numbers of scientists annually, but there is no corresponding institute for avian and mammalian research. Therefore, this building with the 1500 birds and animals

in the adjacent zoo, will afford a wonderful opportunity for study in this field.

The building is now complete and fully equipped. It will afford accommodations for twenty-five or thirty men. Any physician who is interested in any research problem is cordially invited to avail himself of the facilities of this institute.

Preliminary Report of the Commission on Medical Education—Anyone who may be interested in the general questions of medical education and practice can obtain a copy of this report without charge by addressing Commission on Medical Education, 215 Whitney Avenue, New Haven, Connecticut.

Index—California and Western Medicine, Volume XXVI, January to June, 1927

CALIFORNIA AND WESTERN MEDICINE has grown to a size where it is no longer possible to bind the twelve issues of one year in the same volume. Therefore, beginning with this year, there will be two volumes a year, one covering the six issues from January to June, inclusive, and the other from July to December, inclusive. Volumes will be numbered serially as heretofore, and each volume will be supplied with an index.

An ever enlarging circle of physicians who read systematically are finding the Cumulative Index published quarterly by the A. M. A., and sold for a nominal subscription, of incalculable value. Everything published in CALIFORNIA AND WESTERN MEDICINE, as well as other worthwhile medical magazines, is completely indexed in the "Cumulative" in a most complete author and subject index. To obtain a copy of this index, write to American Medical Association, 535 North Dearborn Street, Chicago, Illinois.

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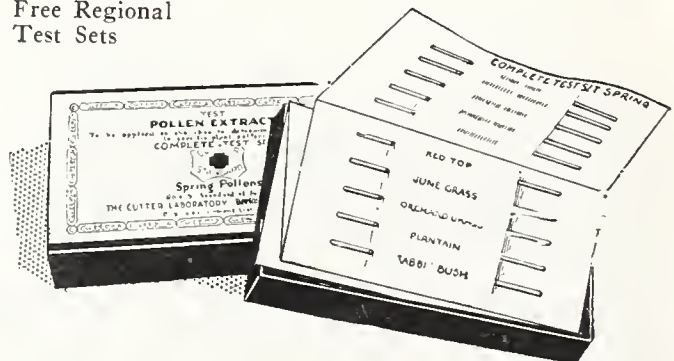
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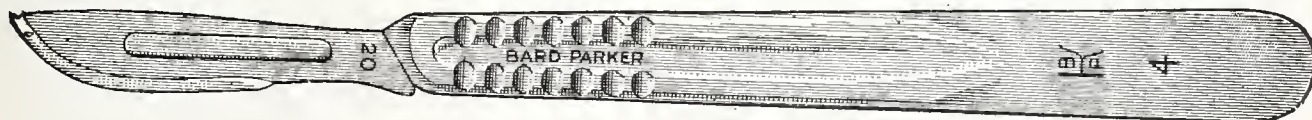
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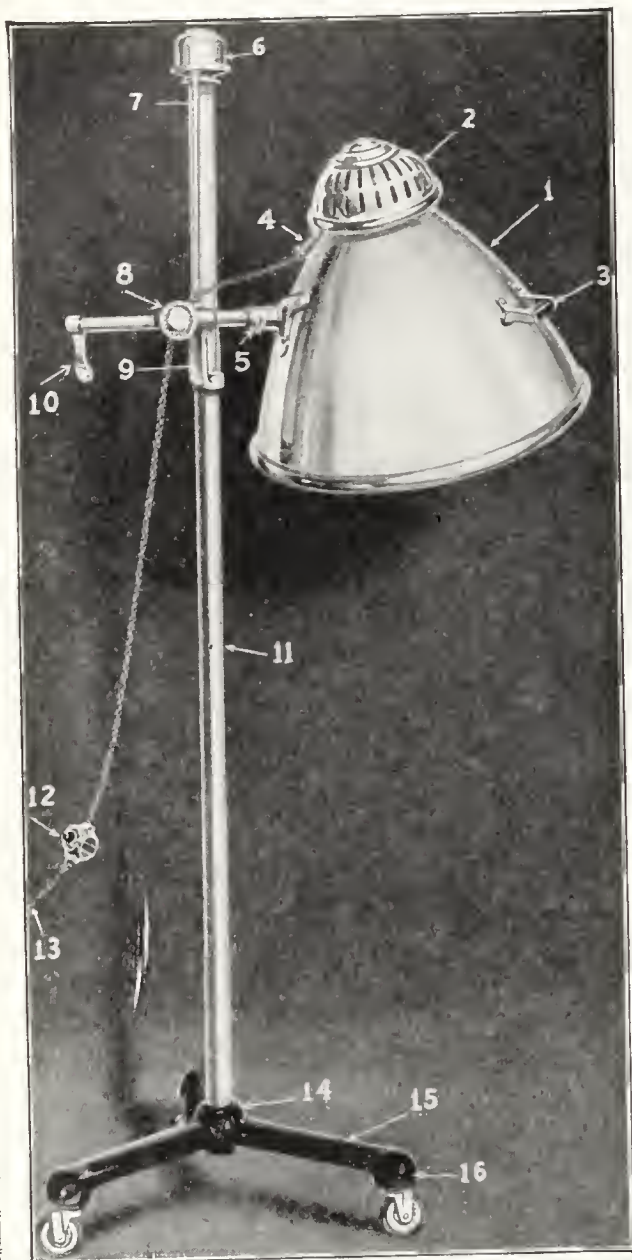
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BOOK REVIEWS

This column is conducted solely in the interests of California and Western Medicine readers. Critical comment, favorable and unfavorable, purely from the standpoint of the interests of the medical reader, will be made about books selected from the larger number acknowledged in the Books Received column. The advertising columns are open to book publishers who wish to make additional statements about their publications.

Lead Poisoning. By Joseph C. Aub, Lawrence T. Fairhall, A. S. Minot, and Paul Reznikoff. With a chapter on the prevalence of industrial lead poisoning in the United States by Alice Hamilton, from the Department of Physiology, Harvard School of Public Health, and the Medical Clinic, Massachusetts General Hospital. Cloth. Price, \$4. Pp. 265, with illustrations. Baltimore: Williams and Wilkins Company, 1926.

This is the seventh of the "Medicine Monographs" published by this firm, the material having been originally published as a review in Medicine. All phases of chronic lead poisoning are thoroughly and critically considered by the authors including the historical development, the chemical, clinical and experimental phases, and a bibliography of five hundred selected references. A good share is devoted to a review of their own researches. While their investigations do not settle everything that is known about lead poisoning they undoubtedly constitute the most important advance in a long time in this difficult field. Briefly, the significant results of their studies show that lead, when inhaled as a dust by cats, and probably in the chronic intoxication of man, is stored mainly in the bones in the form of a tri-lead phosphate ($Pb_3(PO_4)_2$). This lead phosphate exists in the blood in a colloidal and not in true solution, and in acid reaction it is changed to bi-lead phosphate ($PbHPO_4$) which is one hundred times more soluble than the tri-lead phosphate. The bi-phosphate could not exist in the pH (7.4) of the blood, but it is believed that it could be formed locally by local acidosis and that this transformation is connected with lead-actions, as well as with the mobilization of lead from the bones; the latter along with the similar mobilization of the calcium salts. These conceptions are the basis of the treatment introduced by Aub and his coworkers, namely, the administration of acid-producing drugs (mineral acids or NH_4Cl), which can treble the amount of excreted lead in the urine. These agents also modify the excretion of calcium and in the same direction; both the increases in excreted lead and calcium being supposedly mobilized from a solvent action of the acids on bone. The administration of potassium iodide and sodium bicarbonate, which are not thought to have a bone solvent action, also markedly increase the excretion of lead, but lactic acid, which diminishes the alkali reserve, and sodium citrate, which acts as an alkali similarly to bicarbonate, are ineffective. These obscure features, some of them old and well-known facts, are left unanswered. One wonders why the increased mobilization of lead under acid or any other treatment does not result more frequently in an aggravation of the poisoning instead of the beneficial effects that appear to occur. The author's caution against the possibility of causing too great a liberation of lead with their acid treatment. Finally, if one is to believe other evidence in the literature, the retained lead in chronic poisoning is not always predominantly in the bones, but rather in certain viscera, especially in the liver, after absorption from the alimentary tract, which is the main channel of entry in many sufferers. Undoubtedly, a good deal still remains to be learned about the fundamental features of chronic lead poisoning, and this monograph which considers admirably so much that is needed for the proper objective study of the condition will point the way to, and make it easier to attain success, for those who follow.

It is interesting to note that the Medical College of the Long Island College Hospital of Brooklyn has inaugurated a course in medical literature, in which students will be shown the value of medical literature and will be taught how to use a library. It has been suggested that the students of the medical schools about Boston be given the opportunity, in groups of ten or twelve, to spend an evening with Mr. Ballard at the Boston Medical Library. Instruction in the proper method of using a library and in the way to dig out original sources would be both fascinating and useful. We hope that something may be done in this direction, so that students will acquire an appreciation of the value of medical literature, and will be diverted from the pernicious scheme of purchasing a lot of second-hand impressions of the opinions of the great writers of medicine. This latter is not playing the game, and sportsmanship is as admirable in medicine as it is in football.—Editorial, *Boston M. and S. J.*

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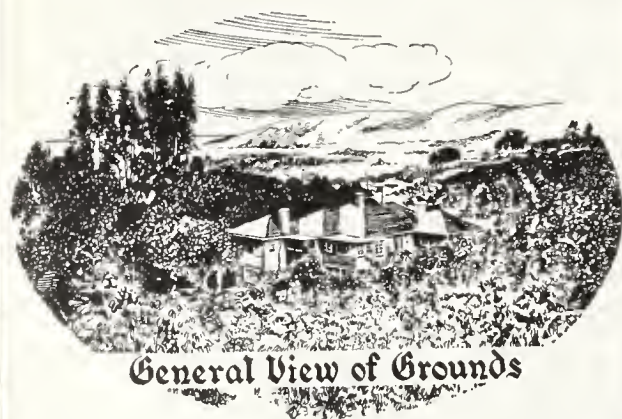
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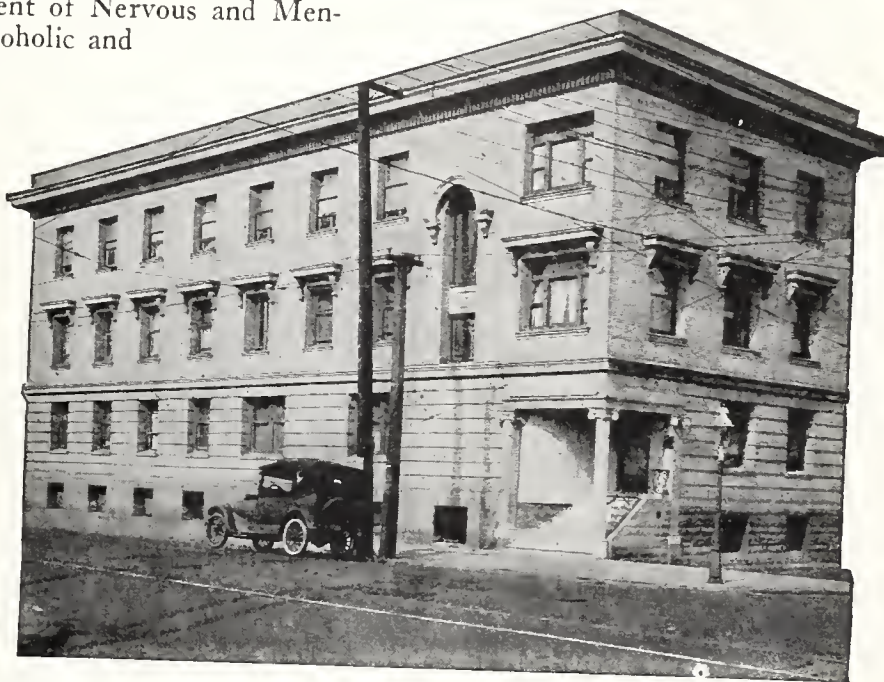
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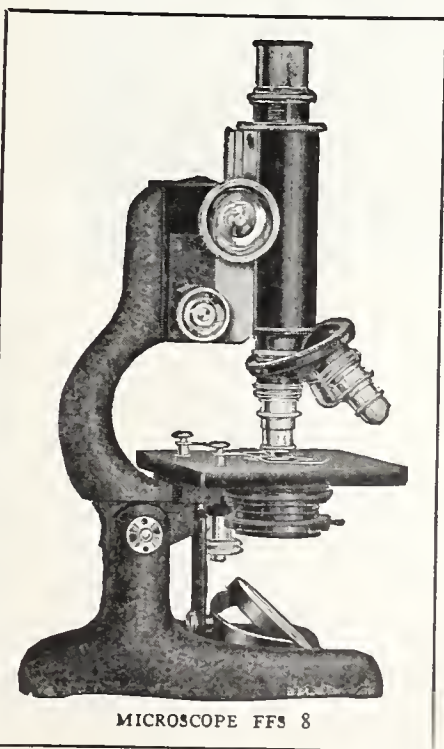
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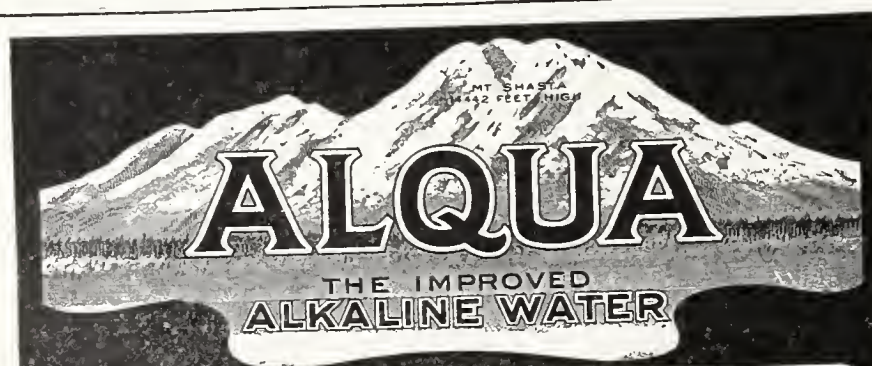


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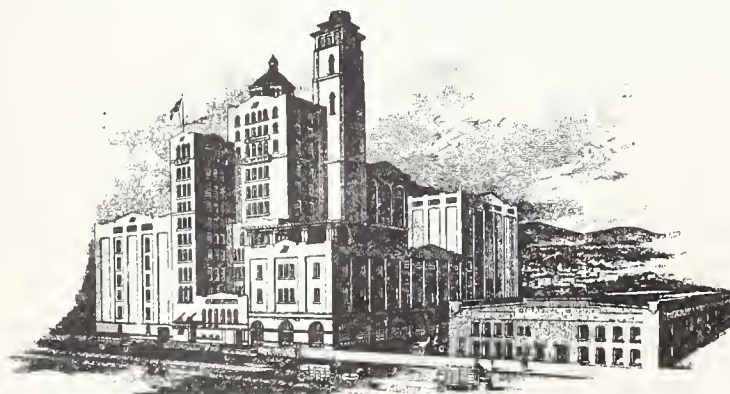
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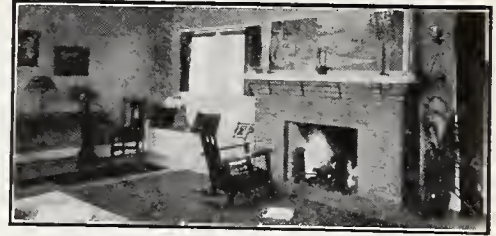
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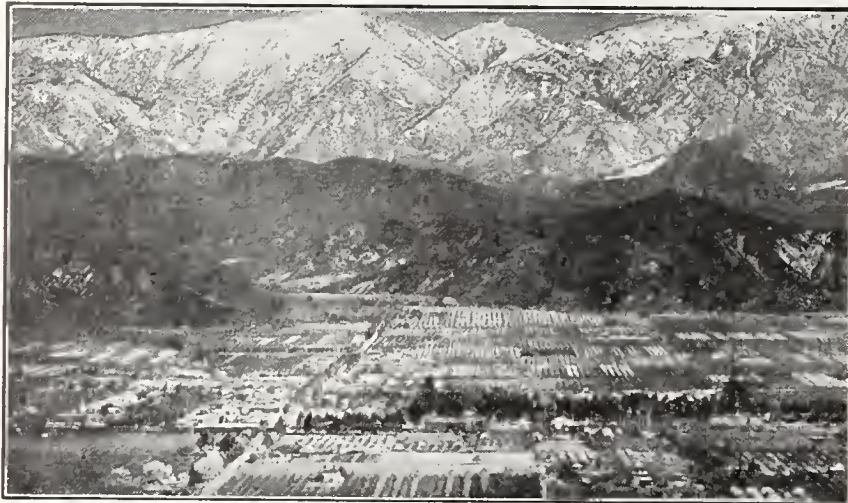
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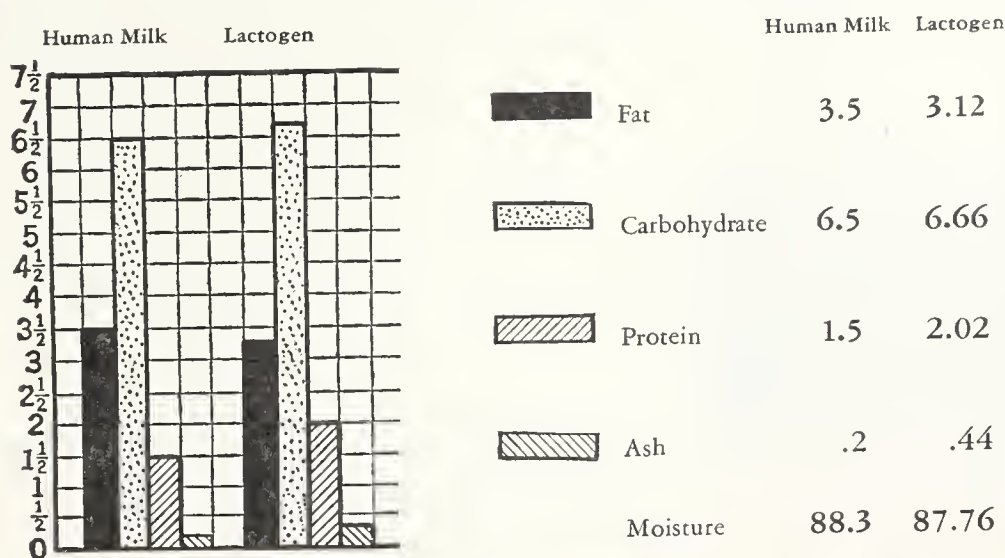
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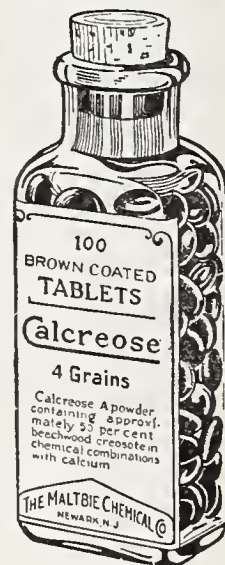
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Generally speaking, individuals tend to elaborate on their successes in the business and social world, while in the matter of the health of the body it is the failures and not the successes that receive elaboration. By applying the same attitude to health as is given to social and business activities, there would be less tired ears and fewer sanatoria.—*Wisconsin M. J.*

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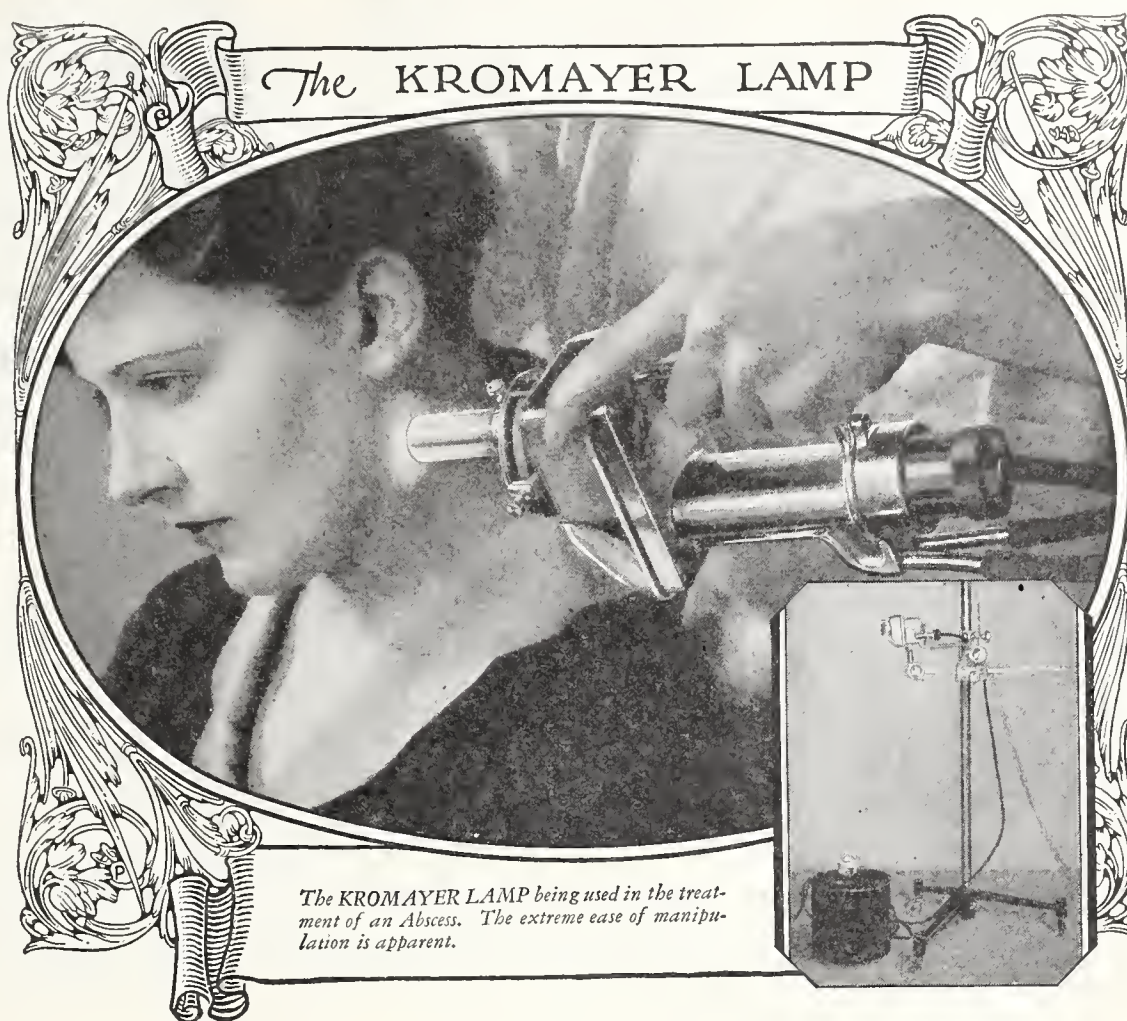
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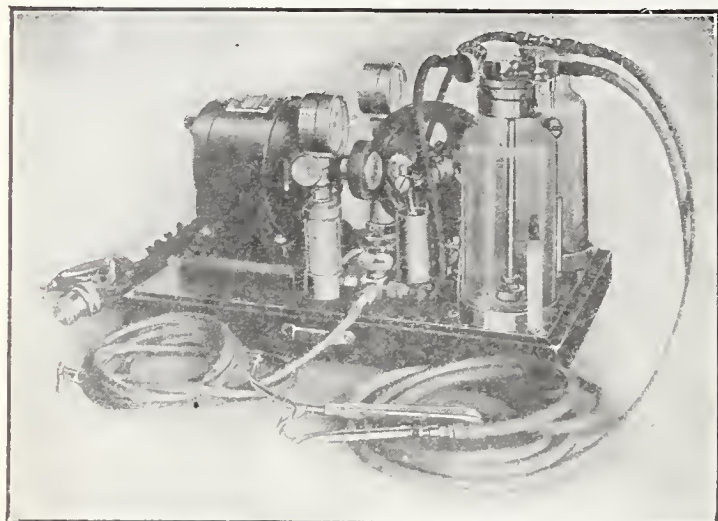
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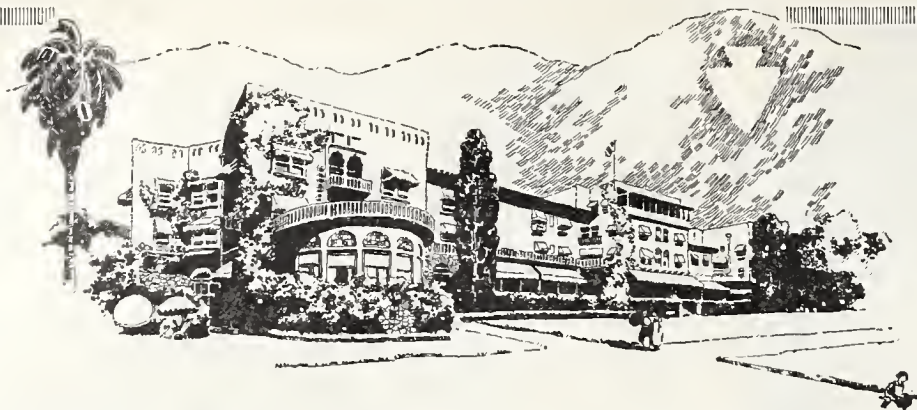
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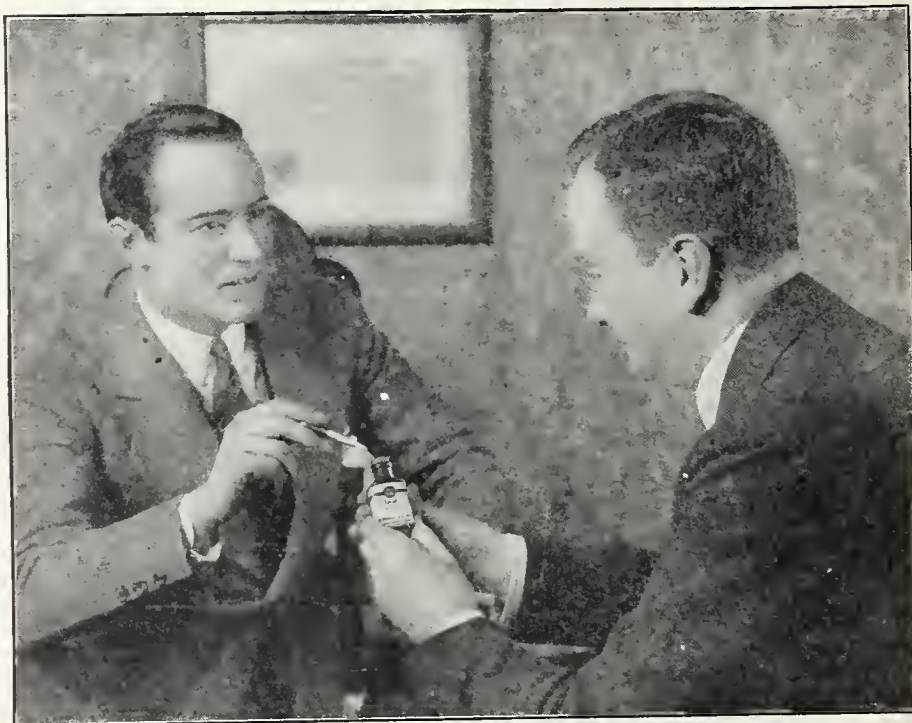
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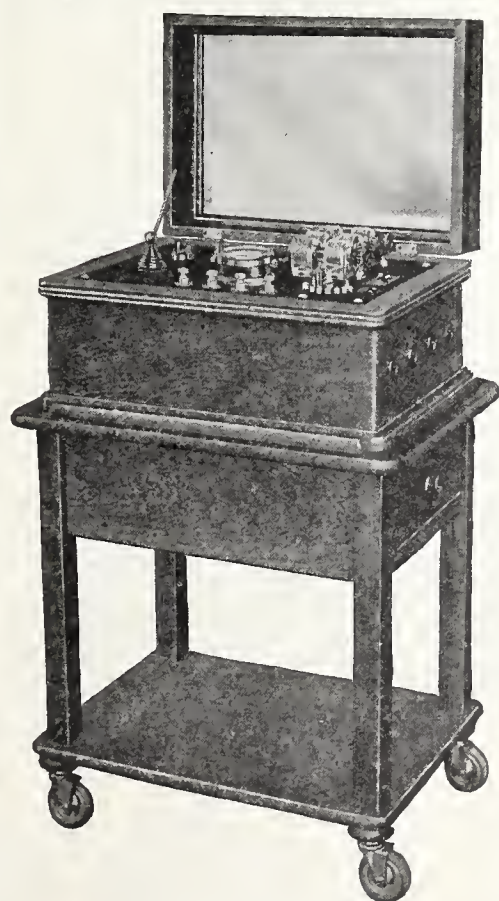
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The Frequency of Botulism—Elsewhere in this issue of The Journal is a report on the frequency of botulism, with a summary of outbreaks for 1926. A study of the data now available for 1926 shows a marked decrease in outbreaks. The reasons for this decrease are not clearly indicated, yet certain facts concerning commercial canning, such as scientifically obtained and controlled sterilization processes by heat, are well known and, theoretically at least, dissemination of knowledge of these facts may be assumed to have had effect. The point has often been stressed, particularly for home canners in western states who may use insufficient heat processes without considering altitude, that vegetables, meat, and fish, so canned, must be boiled thoroughly before being consumed and after being removed from the can or glass jar. Perhaps the most encouraging sign in this report is the absence of any cases attributed to commercially canned food. For a number of years the commercial canning industry has realized its responsibility to the public by performing and supporting research. As a result sterilizing processes have been carefully and scientifically standardized in most foods susceptible to the growth of *Bacillus botulinus* and the production of toxin.—*Journal A. M. A.*, April 23, 1927.

Recent epidemics of typhoid fever in Massachusetts and other localities will tend to create conservatism in speaking of the infrequency of this disease. The hospitals in Montreal are overflowing with typhoid fever patients, 705 cases having been reported since March 4, according to press reports bringing the number since January 1 up to over 1500. Like most recent epidemics, milk seems to have been the vehicle by which the disease has spread. This "vanishing" disease will vanish more generally when pasteurization becomes general.—*Boston M. and S. J.*

A committee is a thing which takes a week to do what one good man can do in an hour.—*Philistine.*

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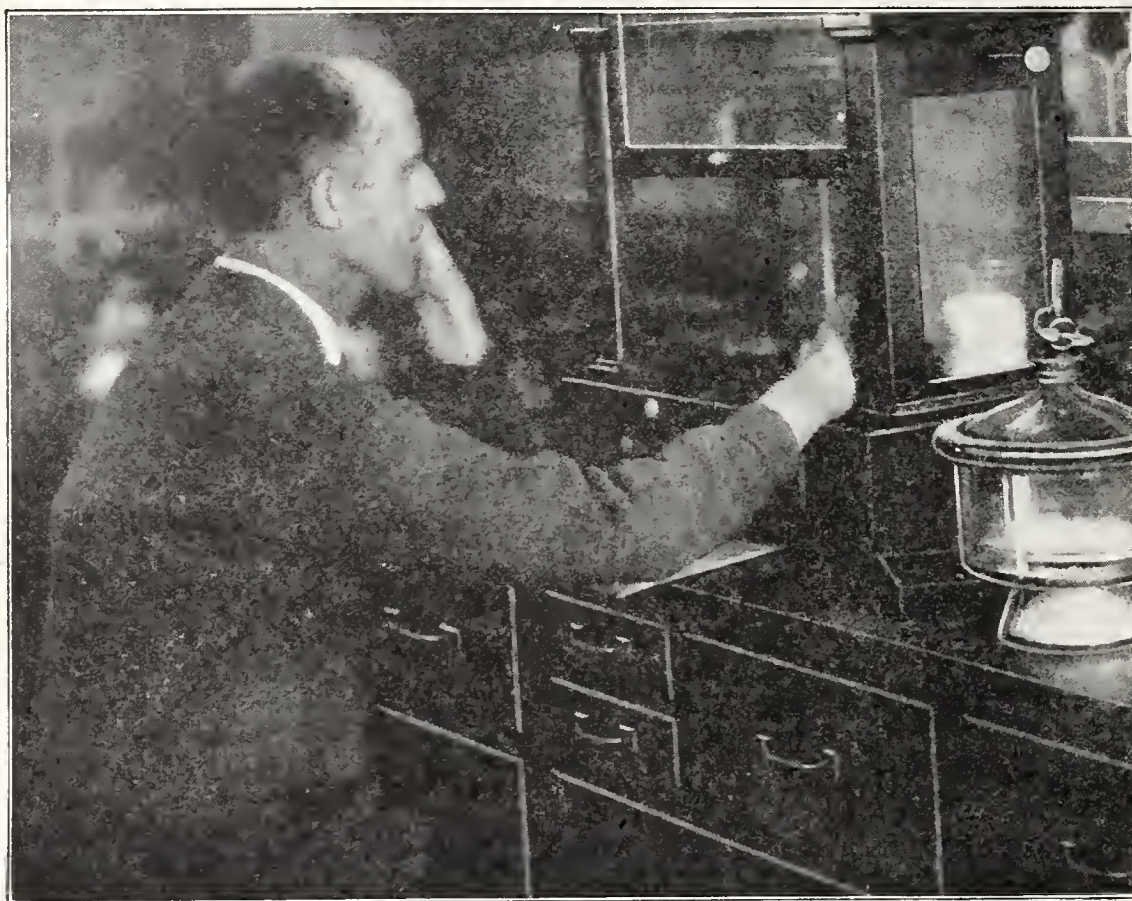
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Literature on Butesin Picrate Ointment, or any of the products mentioned, will gladly be sent on request to physicians. Please mention this publication. If you haven't our complete Specialty List, ask for it.

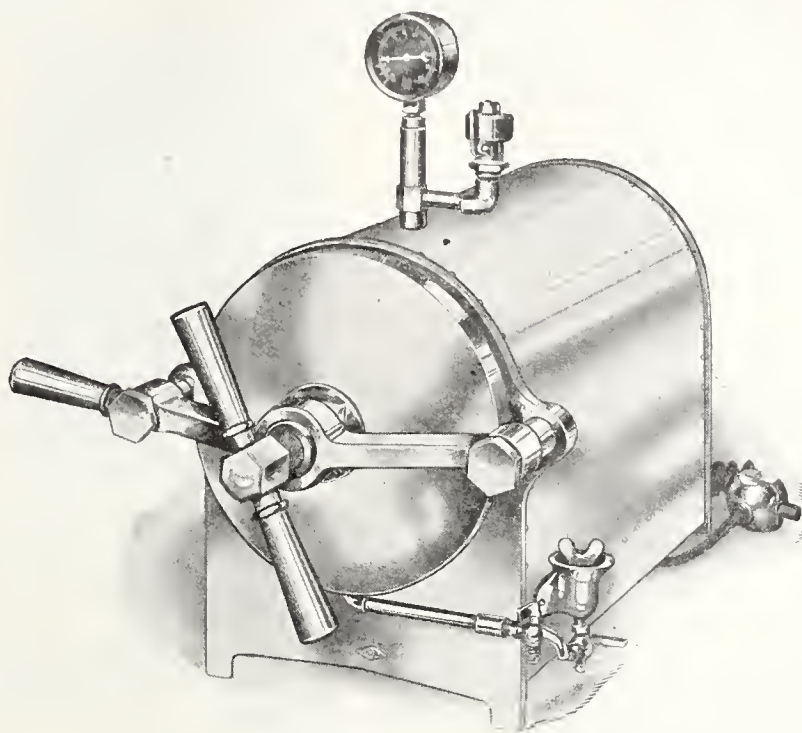
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Ten typical cases of pernicious anemia were obtained by William P. Murphy, Robert T. Monroe and Reginald Fitz, Boston (Journal A. M. A.), on the diet originally described by Minot and Murphy, consisting practically in a daily allowance of from 120 to 240 Gm., and sometimes even more, of cooked calf's or beef liver (an equal quantity of lamb's kidneys was substituted occasionally); 120 Gm. of beef or mutton muscle meat; not less than 300 Gm. of vegetables, especially lettuce and spinach, containing from 1 to 10 per cent of carbohydrate; from 250 to 500 Gm. of fruit; about 40 Gm. of fat derived from butter and cream, allowed in order to make the food attractive (animal fats and oils were excluded so far as possible); if desired, an egg and 240 Gm. of milk; in addition, dry and crusty bread, potato and cereals, in order to allow a total intake of between 2000 and 3000 calories, usually composed of about 340 Gm. of carbohydrate, 135 Gm. of protein and not more than 70 Gm. of fat. Grossly sweet foods were not allowed, but sugar was permitted very sparingly. Each patient continued to take this diet during the entire period of observation, which lasted, in most instances, for several months. The only medicine employed was between 4 and 8 cc. of diluted hydrochloric acid (U. S. P.), three times a day; all but one patient received this. A detailed study of the blood was made in each case. The results corroborate Minot and Murphy's observations that under proper dietetic care a prompt, rapid and distinct remission of the anemia is produced in each instance. The diet appeared to cause the delivery of new, young red blood cells from the bone marrow into the general circulation, as evidenced first by a prompt increase of the reticulocytes in the circulating blood. At about the time that there was evidence of a marked reaction in the bone marrow, there was a decrease of bile pigment concentration in the serum, as manifested by a fall in the icterus index. Coincidentally there was an increasing red blood cell count and hemoglobin concentration, accompanied by a progressive growth in the blood tissue as a whole, as estimated by blood volume determinations. The morpho-

logic appearance of the red corpuscles under treatment became normal, or essentially so; the color index finally became 1 or less than 1; the average cell volume diminished and approached normal; the volume index and the "stroma" index became normal. The diet did not produce changes in the nonprotein nitrogen of the plasma or in the plasma protein. The protein of the corpuscles, however, increased notably, and in almost direct proportion to the increasing hemoglobin concentration.

The advantages of sawdust beds for the untidy insane, according to William R. Thompson, Lexington, Kentucky (Journal A. M. A.), are as follows: They are sanitary, and neat and clean in appearance; all odor is eliminated; bed sores do not develop and readily heal when patients with them, even far advanced paralytics, are placed in the beds. They can be quickly made by any carpenter, and the original cost and cost of maintenance is small compared with the regulation hospital bed and its equipment. Restraint is not needed to keep the patients from falling out of bed as they often did, with bruises and sometimes broken bones resulting, regardless of care and attention. The saving in laundry is quite an item in hospitals.

There is a museum in London which without hyperbole may be said to be unique. This is the Wellcome Historical Medical Museum situated in the heart of the doctors' district in London. It contains collections from all parts of the world bearing on medicine or surgery and the allied sciences, and by means of it the evolution of medicine and surgery can be traced from its sources to the present time—*M. J. and Record.*

"George," said Hilda, looking up from the morning paper which she was reading, "it says here that another octogenarian is dead. What is an octogenarian?"

"Well, I don't know what they are, but they must be very sickly creatures. You never hear of them but they are dying."
—*Medical Standard.*

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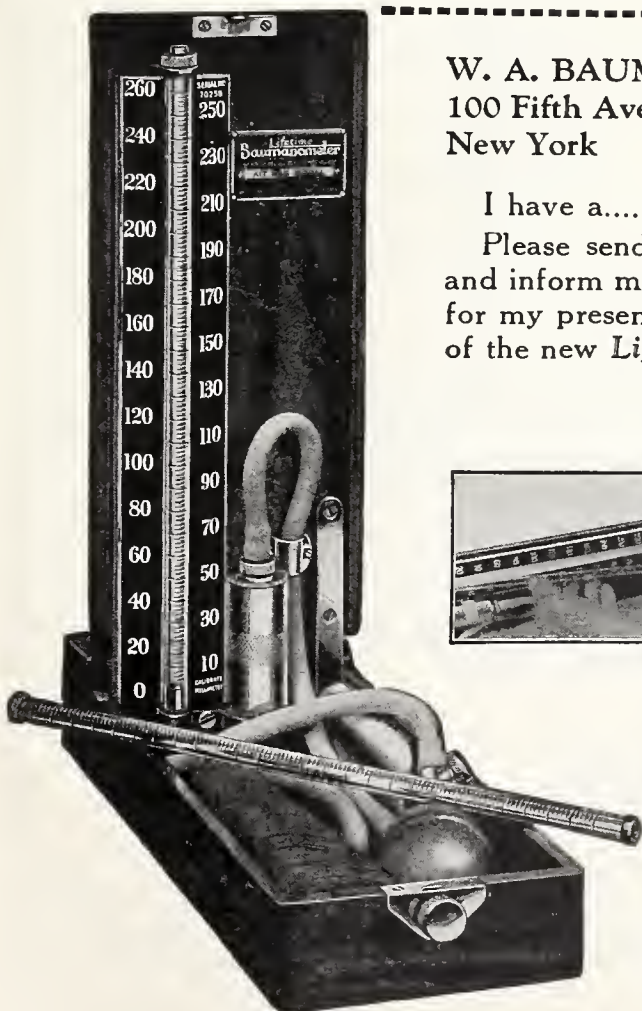


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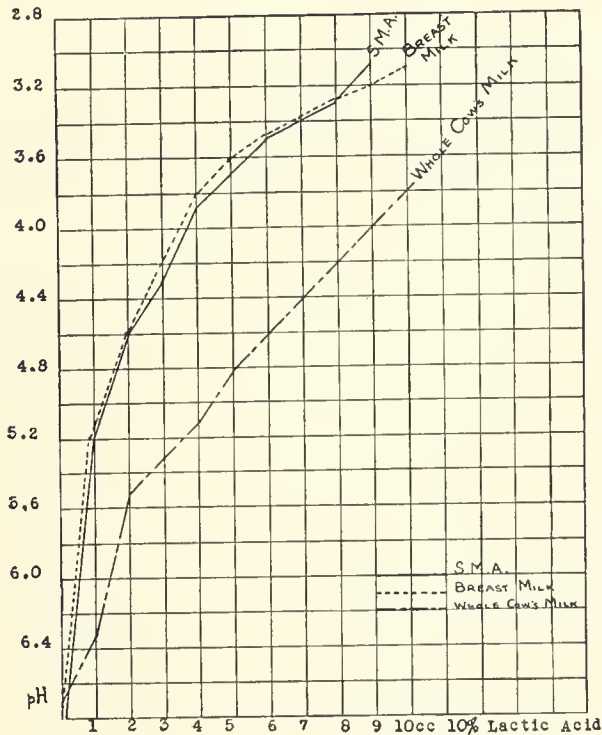
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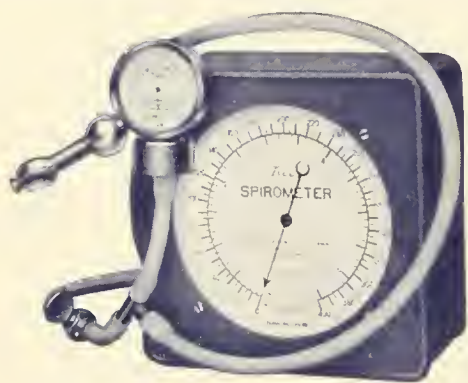
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